PUBLIC HEARING ON TIER 3 PROPOSED RULE

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Sonesta Hotel Philadelphia
1800 Market Street
Philadelphia, Pennsylvania
PARTICIPANTS

1. CHRIS GRUNDLER
2. PAUL MACHIELE
3. MICHAEL OLECHIW
4. KATHRYN SARGEANT
5. MARK KATAOKA
6. JONELL IFFLAND
7. TIA SUTTON
8. TAD WYSOR
MR. GRUNDLER: Good morning, everybody, and welcome. I want to welcome everyone here that traveled from far or nearby and those who are on the phone listening in to this hearing.

I'm Chris Grundler. I'm the Director of EPA's Office of Transportation and Air Quality, and I will be the presiding officer for today's hearing. With me today are my colleagues, Mike Olechiw, Paul Machiele, and Kathryn Sargeant, and my attorney from the Office of General Counsel, Mark Kataoka.

We've a large number of people representing either themselves or organizations who have signed up to speak today. Thank you so much for the time you're devoting to this important process, particularly those of you who are citizens and who have come here to share your views.

Let me say just a few words of introduction and then we'll get started with your testimony. We're hearing today testimony on proposed new standards for vehicle emissions from passenger vehicles and some heavy duty vehicles, and the related standards for
sulfur and gasoline. These proposed standards, which we are calling Tier 3, would significantly reduce health-related pollution from new cars, SUVs, pickups, minivans, and large passenger vehicles, as well as from large pickups and vans, beginning in the 2017 model year. Once it is fully phased in, we expect the proposed Tier 3 program to prevent thousands of premature deaths and illnesses annually, for example, avoiding as many as 2,400 premature deaths each year, 23,000 cases of respiratory ailments in children, and close to two million lost school days, lost workdays, and days of restricted activity every year once the program is fully phased in.

These large health benefits would require significant new investments, primarily by the auto manufacturing and oil refining industries. We expect that auto makers would need to add an average of about $130 to the cost of a new vehicle for improved emission control systems, and refiners would need to invest an average of about a penny a gallon to reduce sulfur in their gasoline products to protect these emission controls for the full use for life of these vehicles.
However, we project that the annual health benefits of the program in dollar terms -- these are the benefits that we can monetize -- would be even larger, far exceeding these costs. We're estimating that the total health-related benefits in 2030 would be between $8 and $23 billion annually compared to an overall annual compliance cost that we are estimating at $3.4 billion.

In designing these standards, we are following a proven formula that we've used in the past in which we consider both the vehicle and the fuel as an integrated system. Taken together, the elements of this proposed program can achieve the large health benefits that I just referenced. And we believe it will achieve these benefits at a reasonable cost to society.

The auto companies and the fuel industry will have plenty of time to meet these standards which we've designed in a flexible way and which will be phased in over a number of years. As I noted, the requirements do not start until 2017, and the vehicle standards would phase in through the year 2025.
To further ease this path to compliance,
we're composing flexibilities for both industries,
including special economic hardship provisions,
additional lead time for compliance that would also
available to affected small business concerns.

What do these standards do? Under the
proposed standards, auto makers would reduce their
tailpipe emissions of smog forming volatile organic
compounds and nitrogen oxides by 80 percent. The
standards would also establish a 70 percent tighter
tailpipe standard for fine particle pollution and
reduce fuel vapor emissions to near zero levels. To
enable these stringent standards throughout their life,
refiners would be required to reduce the sulfur levels
in gasoline by more than 60 percent, down to 10 parts
per million starting in 2017.

One of the most important features of this
program also means that all gasoline vehicles built
prior to the new vehicle standards in 2017 will run
cleaner on this new low sulfur gasoline, providing
significant and immediate health benefits from day one.
Part of the program, and this is all in the docket and
is available on our website, is a description and
results of an extensive new testing program that EPA
undertook to better understand the effects of sulfur on
vehicle emissions, and it's on the basis of this
extensive test program that we now understand much
better the impacts of sulfur on vehicle emissions.

These benefits matter, and they will help
greatly the State efforts to reduce harmful levels of
smog and soot, and enables the States and local air
quality agencies to meet the National Ambient Air
Quality Standards which are in place to protect public
health.

Another feature of this program is that it
aligns the requirements that auto makers have to make
in the coming years so that they can design a vehicle
that can be sold in all 50 States. The standards work
together with the California clean vehicle and fuels
program, and create a harmonized nationwide approach to
reducing emissions from automobiles.

In addition, we've designed the proposal to
be implemented over the same time frame as our new
greenhouse gas and fuel economy standards. So what
this means is auto makers will have one set of targets to meet from both California and the Federal government for a range of pollution, from greenhouse gas emission standards to these what we call criteria pollution standards, as well as air toxics. This is a huge benefit to the auto makers in that it provides them certainty over an extended period of time so they can design their products and invest in technology accordingly, and have a streamlined compliance process that enables them to create one vehicle that's available to all consumers nationwide.

So this is a brief summary of our proposal. I encourage everyone to visit our website for any other information that you may need. The website has a wide range of information, including how to find materials on the public docket, the regulation themselves, and extensive discussion of the program. We have fact sheets out in the hall at the reception area as well as instructions on how to find this website and how to find this material and much more.

So with that brief summary, let me share a bit of logistical information, and then we'll get
started. Because of the number of people who would like to speak today, we're asking you to limit your testimony to five minutes. We estimate that -- for everyone who has already signed up, this will take us well into the evening, so I'd ask your cooperation. We've provided some helpful indicator lights at the desk to help you time your presentation. Yellow means wrap it up. Red means shut up.

[Laughter.]

MR. GRUNDLER: And this will allow everyone a chance to present their views, which is important.

You're welcome to leave any supplementary written material behind. And part of the instructions you'll find on the website is also how to make comments post today's hearing. The comment period will remain open through June the 13th.

We will be here as long as it takes so that everyone can have their say. We're going to be using panels to speed up the process. The order is provided with the agenda at the reception table of these panels.

If anyone is here that wishes to testify that has not already signed up, please do so at the reception table.
Whether you're testifying or not, we'd ask you to sign in so we know who's all here today. We'll be going straight through the panel with a few short breaks. Again, because of the numbers of organizations and people that would like to testify, we will not be able to respond to questions from the audience today, but you're welcome to leave them behind, and we will answer them by email.

Now I'm going to read some text that my lawyers wish me to read: "We seek testimony and comments on all aspects of our proposed rule. We're conducting this hearing in accordance with Section 307(d)(5) of the Clean Air Act, which requires EPA to provide interested persons an opportunity for oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions. After today, we will keep the official record of this hearing open through June 13th, 2013, for submission of any rebuttal or supplementary information. We will conduct this hearing informally and formal rules of evidence will not apply. As presiding
1 officer, however, I am authorized to strike statements
2 from the record which are deemed irrelevant or
3 needlessly repetitious, and to enforce reasonable
4 limits on the duration of the statement of any
5 witness."

6 If you would like a transcript of today's
7 proceedings, you should make arrangements directly with
8 the court reporter sitting behind us during one of the
9 breaks. We'll also make the transcripts available on
10 our website and in the public document for the
11 rulemaking.

12 So with that, I think we're ready to get
13 started. Let me ask the first panel to take your
14 seats. And if you will, please write your name on that
15 blank card at the corner of the table in front of you.
16 It will help us and the audience. I'd ask each
17 panelist to please state his or her name and
18 affiliation, and please speak slowly and clearly so our
19 court reporter can record these proceedings accurately.
20 When the witnesses on the panel have finished their
21 presentations, we'll have an opportunity to ask
22 clarifying questions related to your testimony.
Witnesses are reminded that any false statements or false responses to questions may be a violation of law.

We will try to accommodate everyone who would like to testify.

Thank you, and as soon as our panel is seated, we will proceed. And I'm going to ask Mr. Paul Billings of the American Lung Association to lead us off. Paul?

MR. BILLINGS: Good morning. I am Paul Billings, Senior Vice President for Advocacy and Education at the American Lung Association. On behalf of the 34 million people with chronic lung disease, I urge the Environmental Protection Agency to adopt the final Tier 3 motor vehicle emissions and fuel standards by the end of this year.

Released earlier today, our annual state of the air report shows 132 million people currently live in counties with unhealthy levels of air pollution, areas that get failing grades. Today you will hear from some who will question the benefits of more protective standards or widely exaggerate costs. We
have heard these outlandish claims for decades, and each time such claims are proven false, and the underlying analyses flawed.

EPA's job is clear: set cleaner gasoline and vehicle standards, protect the public health, especially the most vulnerable: our children, older adults, and those with chronic lung and heart disease.

The Clean Air Act grants EPA the authority to set standards for vehicles and fuels and to reduce air pollution that threatens public health under Section 211. The Clean Air Act grants the EPA administrator the authority to limit the sulfur and gasoline which reduces the efficiency of emission control technologies, and leads to greater tailpipe pollution.

When pollution from motor vehicles endangers public health, Section 202 of the Act requires the EPA administrator to take necessary action.

Although we have made progress in the U.S. towards healthier air, the air we breathe is still making millions of Americans sick. Pollution from motor vehicles is a major contributor to ozone and particulate matter. These pollutants trigger asthma
attacks, worsen existing conditions, such as chronic obstructive pulmonary disease, diabetes, harms heart and lung health, and can lead to early death.

As the American Lung Association noted in our recently released report, "A Penny for Prevention: The Case for Cleaner Gasoline and Vehicle Standards," the health benefits of this systems approach, cleaner gasoline and tailpipe standards, are significant. Cleaner gasoline provide immediate reductions from the existing fleet of vehicles, and the improved vehicle standards will ensure auto makers continue to develop and sell new cleaner burning vehicles.

Our analysis estimates that by 2030, the standards under consideration today will prevent more than 2,500 premature deaths and more than 15,000 asthma attacks each year. The standards will provide up to $22 billion in economic and health benefits annually by 2030, increase productivity by preventing more than 3.3 million days of missed work and school. And these benefits are conservative. Our analysis only looked at the eastern half of the United States. The actual benefits could be much higher.
As reported by the Health Effects Institute in 2010, near roadway exposure to traffic pollution is high and affects a larger population than previously thought. Their analysis showed a causal relationship between traffic-related air pollution and asthma exacerbations in children. The HEI reports that 30 to 45 percent of people living in large North American cities live within 300 to 500 meters of a highway or major road, zones that are most heavily impacted by traffic pollution.

To reduce exposure to this toxic brew of traffic-related pollutants, including particulate matter, we encourage the EPA to set the tightest tailpipe standards for non-methane organic gasses, nitrogen oxides, and particulate matter, and the lowest possible downstream cap for sulfur. We will submit detailed comments on how to specifically strengthen the proposal in writing.

My wife and I are blessed to have two healthy and active daughters. Soccer, lacrosse, and track are their competitive sports. Like every parent, every individual breeze, I care deeply about the quality of
the air my family and I breathe. Last year, my younger
daughter was diagnosed with exercise-induced asthma.
Her high school is adjacent to I-495, Washington's
capital beltway. Air pollution from vehicles and the
resulting smog and soot are a real and direct threat to
her health and the health of her teammates.

In my wife's fifth grade class, there are far
too many children with asthma. We must protect all of
the children, whose lungs are still developing, and all
the vulnerable populations from air pollution.

The American Lung Association applauds the
U.S. EPA's effort to cut life threatening tailpipe
pollution through the long-awaited cleaner gasoline and
vehicle standards. To save lives and protect public
health, these standards must be finalized no later than
the end of this year.

Thank you for the opportunity to speak in
support of these critical safeguards.

MR. GRUNDLER: Thank you, Mr. Billings.

Mr. Solomon?

MR. SOLOMON: Thank you and good morning. My
name is Matt Solomon. I'm Transportation Program
Manager for the Northeast States for Coordinated Air Use Management. NESCAUM is the association of air pollution control agencies in Connecticut, Maine, Massachusetts, New Hampshire, New York, New Jersey, Rhode Island, and Vermont. I'm speaking today in recognition of the air quality public health and environmental benefits that will accrue in our region if EPA promulgates the rule, the Tier 3 regulation.

I'd also like to recognize and thank you and your staff for the incredible diligence and hard work that you've put into this important rulemaking.

NESCAUM and our member states are committed to clean vehicles as evidenced by the adoption of the California low emission vehicle standards in seven of our member states. While Tier 3 vehicle emission standards would not directly affect emissions from new vehicles sold in these States, it would reduce pollution transported from neighboring regions, and ensure that out of state vehicles operating within our region have comparably low emission characteristics.

More importantly, the Tier 3 fuel standards would improve air quality in the northeast by
1 significantly reducing emissions from the existing
2 fleet. By harmonizing vehicle emission standards with
3 those in the California program, Tier 3 would
4 facilitate compliance by automobile manufacturers,
5 enabling them to harness economies of scale by
6 deploying advanced emission control technologies in all
7 new vehicles sold nationwide.

While Tier 2 vehicles are significantly
9 cleaner than their predecessors, motor vehicles remains
10 the largest source of ozone forming pollutants in the
11 region. As early as 2007, EPA recognized the
12 importance of Tier 3 standards to help States meet the
13 NAAQS for ozone, and it is late in delivering the much
14 needed reductions from the light duty vehicle sector.
15 It is both feasible and appropriate to set new Federal
16 exhaust and evaporative emission standards and clean
17 gasoline requirements comparable to those already in
18 place in California.

The low sulfur gasoline provisions in the
20 proposed Tier 3 rule would provide critical air
21 quality, public health, and environmental benefits in
22 the northeast. Cleaner gasoline allows pollution
control equipment on cars and trucks to operate more effectively and can significantly reduce oxides of nitrogen and other vehicle emissions. The introduction of 10 parts per million sulfur gasoline would result in a very large and nearly immediate reduction in NOx emissions from the existing fleet of gasoline vehicles.

Lower sulfur gasoline also facilitates the deployment of advanced technologies to improve fuel economy and reduce greenhouse gas emissions, which would help mitigate the impacts of climate change, reduce gasoline consumption, and save consumers money.

Motor vehicles are the Northeast's largest source of NOx, which is the most important contributor to elevated regional ozone concentration and an important precursor to fine particulate matter formation. These pollutants are responsible for tens of thousands of premature death, hospital emissions, and lost work and school days in the U.S. annually.

Reductions in NOx associated with the Tier 3 rule would also help States meet the new nitrogen dioxide NAAQS and reduce environmental impacts of acid rain, coastal marine eutrophication, and regional haze.
National and regional NOx controls, including those from motor vehicles, have proven to be extremely effective in lowering ambient levels of ozone in the eastern U.S. NESCAUM estimates that the Tier 3 low sulfur gasoline provisions alone would reduce NOx emissions in the eastern U.S. by more than 175,000 tons per year. These NOx reductions would benefit air quality and public health in the northeast by lowering the ozone reservoir that forms in the eastern U.S., and by reducing the amount of low level NOx emissions and pollutants derived from NOx that are transported into the northeast Mid-Atlantic region.

Even with the projected benefits associated with the programs currently in effect, many of our most populous areas are predicted to be a non-attainment area for the current 75 part per billion ozone max in 2015. Attaining the standard in these areas will require additional NOx reductions within our region, as well as in upwind areas that contribute to the region's pollution burden.

Tier 3 is the most significant strategy the Federal government could implement to help States
attain and maintain the NAAQS for ozone. The combined near-term benefits of the low sulfur gasoline provisions and the increasing benefits of the tailpipe standards would help areas that need additional reductions to attain and assist other areas to stay in attainment.

According to the petroleum industry's own estimates, the Tier 3 program would monthly decrease eight-hour ozone by up 1.2 part per billion in 2022. Although proponents of the proposed rule characterize this reduction as insignificant, in fact, it is very substantial and greater than could be achieved by any other known practical measure in the same time frame. Further, the benefits of the new emission standards would increase over time with fleet turnover. Reductions not achieved through the Tier 3 program and other Federal measures would have to come from additional controls on local sources.

I'd like to quickly mention two other provisions that would contribute to improved air quality and reduce public exposure to toxic contaminants in gasoline: reducing evaporative
emissions to near zero levels from all affected
vehicles as is currently the case with hundreds of
thousands of California certified vehicles on the road
in the northeast. In addition, the use of -- the
requirement to use a gasoline ethanol blend in place of
indolene would ensure that certification testing more
accurately reflects emissions from in-use vehicles.

Thank you very much.

MR. GRUNDLER: Thank you, Matt.

Next I'd like to ask Mr. Tim Hogan to provide
his comments. Mike Stanton, you're on deck.

MR. HOGAN: Good morning. I'm Tim Hogan,
Director of Motor Fuels at the American Fuel and
Petrochemical Manufacturers. The AFPM is a trade
association representing high technology American
manufacturers of virtually the entire U.S. supply of
gasoline, diesel, jet fuel, other fuels, and home
heating oil, as well as the petrochemicals used as
building blocks for thousands of products vital to
everyday life.

EPA proposes that refiners further lower the
amount of sulfur from gasoline despite the fact that
our industry already removed 90 percent since 2004.
The remaining incremental reduction of trace amounts of
sulfur will cost refiners almost as much as the Tier 2
reduction 10 years ago, which removed 15 times more
sulfur than the proposed Tier 3 regulation would
require.

A Baker and O'Brien analysis estimates that a
gasoline sulfur content reduction will cost refiners
$10 billion in capital costs, and $2.4 billion per year
in operating costs, increasing the cost of producing
gasoline by six to nine cents per gallon. We know that
mobile source emissions have declined because of the
Tier 2 standards, and this will continue because not
all cars and light duty trucks in the current fleet are
Tier 2 vehicles. However, the estimated air quality
benefits of Tier 3 will be much smaller than Tier 2.
For ozone, this reduction is estimated to be no more
than .05 parts per billion by 2022.

The Agency claims that this proposed Tier 3
standard is necessary for States to attain the existing
ozone NAAQS. Last year, EPA promulgated nonattainment
areas for the 2008 ozone NAAQS. Most -- 36 are
marginal out of 46 total nonattainment areas -- must be in compliance by 2015 based on monitoring data for 2013, 2014, and 2015. Tier 3 will not help these 36 marginal nonattainment areas because it will not be effective before 2017.

We believe that there should be at least five years between the promulgation of a Tier 3 rule that includes reduction in the sulfur content, gasoline, and its effective date. Refiners need this lead time to schedule equipment modifications or the installation of new equipment during a turnaround. Otherwise refiners may be temporarily shut down with the associated supply impacts.

Tier 3 is not required by law, and the selection of 2017 is arbitrary. If the EPA promulgates a reduction in the sulfur content of gasoline in late 2013, then the effective date should not be earlier than 2019. The AFPM recommends that the current refinery gate cap for gasoline remain at 80 ppm sulfur. This would not interfere with an engine technology.

Even the Agency has proposed that 80 ppm is prudent for 2017 to 2019.
The AFPM supports a new certification fuel. Indolene should be replaced with E10, not E15. Almost all gasoline today is E10. It is speculative to expect that E15 will be the predominant fuel in 2017. The current certification fuel in California is E10, and one of the stated goals of this proposal is harmonization with California standards.

New regulations can actually create conflicts with existing regulations. These conflicts could jeopardize a refiner's ability to comply with federal formulation regulations. Refiners will often have to make modifications to operations that are necessary to make clean fuels. Such upgrades could trigger greenhouse gas emissions regulations, putting these projects in jeopardy.

Incongruously, as a result of the required -- requiring the refiner industry to install energy intensive equipment to reduce additional sulfur, the Baker and O'Brien analysis estimates the greenhouse gas emissions will increase by one to 2.3 percent in refineries as a result of this proposal.

The Administration needs to understand that
further gasoline sulfur reduction will cause an increase in emissions at the refineries. In this instance, mandating lower sulfur fuels under the Clean Air Act will require facilities to install advanced technologies that increase energy use for the formulation of increasingly complex motor fuels. For example, sulfur is a component of crude oil. Hydro treating is the principle technology used to reduce sulfur and petroleum products. This and other technologies in turn require significant additional energy consumption with associated greenhouse gasses and other emissions.

The production of extra hydrogen necessary for the hydro treater results in an increase in GSG emissions because the hydrocarbon source must be cracked to remove the hydrogen, releasing large amounts of CO2. Therefore, the proposed gasoline sulfur reduction standard will increase the carbon footprint at refineries.

The AFPM has requested that the public comment period for the Tier 3 rulemaking be extended beyond June 13. There are hundreds of documents in the
docket, and additional time is necessary for a comprehensive review. AFPM recommends 90 days after publication of this proposal in the Federal Register.

Thank you.

MR. GRUNDLER: Right on time. Thank you, Mr. Hogan.

Mr. Stanton?

MR. STANTON: Yes, good morning. My name is Mike Stanton. I'm President and CEO of the Association of Global Auto makers. We represent 15 international motor vehicle manufacturers, a number of original equipment suppliers, and other automotive related trade associations.

And it's hard to believe it's been nearly a year and a half since we were here in Philadelphia providing testimony on the proposed standards for greenhouse gas emissions and fuel economy. And in that testimony, we emphasized the need for uniformity. Auto makers need to be able to manufacture and sell vehicles that are compliant in all 50 States. The benefits of producing one fleet for sale in all 50 States is critically important and provides real and significant
health and environmental benefits for our Nation.

Today we have returned to consider another of the President's goals: to reduce criteria pollutant emissions under the Tier 3 rule. Global auto makers and its members have supported the Administration's effort to develop these standards. And while challenging, the proposed standards are feasible and provide the necessary flexibility and lead time.

But these standards cannot be met with vehicle changes alone, and the Tier 3 proposal recognizes another critical component in reducing vehicle emissions, and that is fuel quality, or, more specifically, the sulfur content in gasoline. We believe the proposed fuel standards for a nationwide supply of clean, ultra-low sulfur gasoline is critical for auto makers to meet the new and highly stringent vehicle emission standards. We support the 10 parts per million average and a low cap for sulfur and gasoline.

Ultra-low sulfur gasoline has been available in California for years, and the ability to comply with emissions standards in California is premised on the
use of such fuel, recognizing the need to treat the
vehicle and the fuel as a system. In addition to
needing ultra-low sulfur fuel to achieve the proposed
emission standards, ultra-low sulfur fuel is also
critical to auto manufacturers' effort to meet the
combined 54.5 miles per gallon fuel economy and
greenhouse gas emission standards by 2025. And, most
importantly, the ultra-low sulfur fuel will provide
immediate and substantial public health benefits from
the existing fleet of nearly 250 billion vehicles on
the road today.

According to the National Association of
Clean Air Agencies, the impact on the fleet is
equivalent to taking over 30 million vehicles off the
road. And today vehicles are lasting longer, and the
average age of all vehicles on the road is 11 years.
While the proposed standards will be another great step
in reducing the fleet's emissions, it will take time
for fleet turnover to fully realize the benefits. In
the meantime, the ability to immediately and directly
reduce emissions from the vehicles on the road today by
reducing sulfur and gasoline cannot be matched.
Thank you.

MR. GRUNDLER: Thank you.

Mr. McCulloch, you're next.

MR. MCCULLOCH: Thank you and good morning.

I want to thank the distinguished members of the panel for hosting this session today. My name is Rob McCulloch, and I'm Senior Policy and Legislative Advocate for the BlueGreen Alliance.

The BlueGreen Alliance is a national partnership of America's largest labor unions and environmental organizations. Our partners include the United Autoworkers, United Steelworkers, and IUECWA, with deep membership in the auto industry, the supply chain, and the refining industry. Our environmental partners include the Sierra Club, NRDC, and the Union of Concerned Scientists, many of whom are here today to provide resounding testimony at this session.

We'd first like to commend the Obama Administration and, specifically, the Environmental Protection Agency, for their outstanding leadership on reducing air pollution from passenger vehicles and trucks through a variety of innovative programs.
The Tier 3 program enhances a comprehensive Federal approach, making our vehicles more energy efficient and less polluting, to include a strong tailpipe rule established last year that will nearly double fuel efficiency of passenger vehicles by 2025 to 54.5 miles per gallon. Also, the first ever heavy duty standard, which by 2018 will improve commercial truck efficiency, between seven and 25 percent among classes. Since pollution reduction is strongly commensurate with efficiency gains, these efforts will also provide significant benefits to air quality and greenhouse gas mitigation.

The Tier 3 program takes these measures a step further by reducing levels of harmful pollutants to include nitrous oxides, carbon monoxide, and particulate pollution, which have a direct impact on public health. America's working families deal firsthand with the impacts of dirty air in terms of missed work and school days, increased medical costs, and long-term health effects.

The BlueGreen Alliance strongly supports the proposed Tier 3 program since in addition to cleaning
our air and reducing harmful pollution, the cleaner fuels established in the program will help the automotive industry meet the ambitious goal of doubling fuel efficiency over the next decade.

Cleaner fuel makes emission systems more effective for both new vehicles and those currently in operation. In addition, making cleaner fuels widely available will help facilitate the development of new cost-effective technologies that will further improve fuel economy and greenhouse gas mitigation, ultimately saving consumers money.

The automotive industry has added more than 200,000 jobs since 2009, and the U.S. auto market has had three consecutive years of double digit growth due in large part to rising demand for these cleaner cars in the market. "Gearing Up," our report last year by the BlueGreen Alliance and the American Council for an Energy Efficient Economy, estimated that meeting the 54.5 mile per gallon rule will create more than 500,000 jobs through the U.S. economy by 2030. Building cleaner, more efficient cars creates jobs by sending money otherwise spent on fuel back into the U.S.
economy, and also through the development and production of new, more efficient vehicle components.

The Tier 3 standard will only bolster the auto industry's ability to meet a strong fuel efficiency standard and generate these net positive economic outcomes. Implementation of Tier 3 will also have a positive economic impact in other sectors as well.

A report published last year by Navigant Economics found that on the demand side, gasoline prices to consumers would be negligible. On the supply side, upgrading refineries could create more than 20,000 construction jobs and more than 5,000 jobs in refinery operations over the next three years of implementation.

Additionally, the program includes critical elements that will allow refiners to deliver cleaner fuels to the market in an economical and timely manner, as well as provisions that ensure smaller manufacturers and refiners can reach compliance without unfair burden. It is critical to provide a mechanism like this to help industries transition to a cleaner
regulatory framework. For example, the advanced technology vehicle manufacturing loan program has created or sustained more than 40,000 jobs in the auto sector advancing fuel saving technologies.

We continue to -- we support the continued viability of ATBM and programs like it as a complement to efficiency and pollution standards like the 2025 tailpipe standard and the proposed Tier 3 rule. As the Administration finalizes this innovative program, the BlueGreen Alliance looks forward to continuing our engagement with EPA and other stakeholders to implement the strong standard.

American innovation and smart policies like Tier 3 will contribute significantly to healthier families, cleaner skies, a strong auto industry, and more opportunity for workers throughout the economy. The BlueGreen Alliance partnership is committed to demonstrating that cleaner cars and cleaner fuels are win-wins for America.

Thank you for your time.

MR. GRUNDLER: Thank you.

Mr. Kubsh, you're next.
DR. KUBSH: Good morning. My name is Dr. Joe Kubsh. I'm the Executive Director of the Manufacturers of Emission Controls Association, or MECA. MECA is pleased to provide comments in support of EPA's proposed Tier 3 light duty vehicle emission and fuel standards. These proposals when finalized will reset the bar for state of the art exhaust and evaporative emission controls for light duty vehicles through 2025. The proposals also require the oil industry to produce and sell ultra-low sulfur gasoline that will result in immediate and significant emission reductions from the hundreds of millions of light duty vehicles operating every day on America's highways, and ensure future fuel efficient gasoline vehicles can comply with EPA's proposed Tier 3 emission limits.

MECA applauds EPA for developing a Tier 3 proposal that will establish a national set of exhaust and evaporative emission standards by largely harmonizing their proposal with California's LEV III requirements. MECA is a non-profit association of the world's leading manufacturers of emission control technology for mobile sources. Our members have over
40 years of experience and a proven track record in developing and manufacturing emission control technology for a wide variety of on road and off road vehicles.

The mobile source emission control industry has generated hundreds of billions of dollars in U.S. economic activity since 1975, and supports approximately 65,000 U.S. jobs, mostly in product development and manufacturing.

MECA agreed with EPA staff assessment that achieving the proposed Tier 3 exhaust and evaporative mission standards and associated emission reductions are both technically feasible and cost effective. This fact is clearly demonstrated by more than two million super ultra-low emission vehicle and partial zero emission vehicle compliant light duty vehicles that have been sold in the U.S. market since these near zero emission gasoline vehicles were first introduced more than 10 years ago.

This technology base of advanced three-way catalyst, exhaust hydrocarbon absorbent materials, high cell density substrates, emission system thermal
management strategies, secondary air injection systems, advanced carbon canisters, advanced low fuel permeation materials, and air intake hydrocarbon absorbent materials that have already been commercialized for a variety of PZEV gasoline vehicle applications can be extended and further optimized to allow all light duty and medium duty gasoline vehicles to achieve the exhaust and evaporative mission reductions needed to comply with the Tier 3 proposals.

In addition, advanced diesel emission control technologies, including diesel particulate filters, lean NOx absorbers, and selected catalytic reduction catalysts, will be combined with future advanced diesel engines to allow light duty diesel vehicles to achieve the proposed Tier 3 emission limits, including EPA's proposed Tier 3, Bin 30 exhaust standards.

A critically important element to ensuring that the future gasoline vehicles will be able to comply with these proposed Tier 3 emission limits is EPA's proposed reduction of gasoline fuel sulfur levels to a 10 ppm national average starting in 2017.

Numerous published studies have documented fuel sulfur
related deactivation of three-way catalysts that are the primary exhaust emission control technology used on light duty and medium duty gasoline vehicles.

As Mr. Grundler stated, EPA has released a thorough and well-designed sulfur effect study on 81 in-use Tier 3 light duty gasoline vehicles that clearly show significant reductions in criteria pollutants in comparing emission performance on gasoline with 28 ppm sulfur versus five ppm sulfur.

Work authored by Umicore in a 2011 Society of Automotive Engineers Technical Paper shows similar significant emission benefits on a 2000 model year PZEV vehicle, operated with three ppm sulfur gasoline versus 33 ppm sulfur gasoline. In a MECA study published in a 2007 SAE paper, an advanced three-way catalyst system installed on a large V-8 powered SUV showed clear evidence of sulfur deactivation and successive FTP testing with aged catalysts using 17 ppm sulfur gasoline.

FTP emissions for this full-size SUV started at the proposed Tier 3, Bin 50 levels, and increased to slightly above proposed Bin 70 levels by the third FTP
test, and emissions increased more than 80 percent over three FTP tests.

Sulfur deactivation of three-way catalysts negatively impacts the active precious metal catalysts, oxygen storage materials, and other activity promoters found in these sophisticated catalysts. The coverage and negative impacts of sulfur poisons on three-way catalysts depends in part on the temperature history of the catalytic converters found on the vehicle. Exhaust temperatures are expected to COO in the future as manufacturers reduce vehicle waste heat to meet future vehicle fuel efficiency and greenhouse gas standards.

These cooler converter operating temperatures cause catalysts to accumulate higher amounts of sulfur poisons with today's gasoline sulfur levels, resulting in higher emission levels of pollutants like hydrocarbons and NOx.

MR. GRUNDLER: Time is up, Joe.

DR. KUBSH: Thank you.

MR. GRUNDLER: Mr. Minott, you have the last word on this panel.

MR. MINOTT: Thank you. My name is Joe
Minott, M-I-N-O-T-T, and I'm the Executive Director of the Clean Air Council headquartered here in Philadelphia.

I welcome you to Philadelphia and thank you for allowing me this opportunity to testify today. It is particularly fitting that the EPA is holding this hearing in Philadelphia, home to the Philadelphia refinery that used to be known as a Sunoco refinery, which supplies the East Coast with roughly one-quarter of its gasoline.

More than one in three Americans still live in the areas where air pollution levels exceed at least one Federal health standard, and automobiles are a major part of the problem. NOx is the most important contributor to elevated ozone levels throughout the northeastern United States, and is the key precursor to find particulate matter formation.

The standards for controlling soot pollution from passenger vehicles are key to reducing the health impacts of poor air quality, including asthma attacks, respiratory problems, and premature death. Labor, environmental health advocates, environmental justice
advocates, car manufacturers, and consumer groups all support the proposed rule. The oil industry, which has historically vastly over-estimated the cost of compliance with environmental regulations, stands alone in opposing the rule.

The proposed rule is particularly important for the Council's environmental justice work in Philadelphia's low income communities. Please remember as you listen today to the many voices for or against this proposed rule that you are being hosted in Philadelphia, the American city with the highest rate of deep poverty, people with incomes below half of the poverty line of any of the Nation's 10 most populous cities.

The reason I mention this fact at the start of my testimony is that members of low income neighborhoods live closest to refineries and major highways. These are also the neighborhoods that have the highest asthma rates and the least access to health care. These are the neighborhoods most in need of the environmental benefits provided by this rule.

The Council applauds EPA's efforts to propose
The Tier 3 rules. The proposed rules will reduce the allowable amount of sulfur and gasoline, and will help an automobile's pollution control system work more efficiently, which, in turn, would allow it to trap more pollution from emitting into the ambient air.

More specifically, the proposed rules would reduce the refinery annual average sulfur limit in gasoline from 30 parts per million to 10 parts per million, which is a 66 percent reduction. And further, the rules would reduce the fuel vapor emissions to nearly nothing. According to the Union of Concerned Scientists, the expected air pollution reductions from the proposed rules are equivalent to removing 33 million cars from the road.

The proposed rules are cost effective. Please keep in mind that the American public has been subsidizing the cost of gasoline by not forcing refineries to account for the public health and environmental harm caused by dirty gasoline. While the rules may raise the cost of gasoline by a mere penny per gallon, the rules are estimated to produce up to $23 billion in health benefits by 2030.
EPA estimates that the proposed rules would prevent up to 2,400 premature deaths, 3,200 hospital visits, and 22,000 asthma attacks a year. Furthermore, the proposed rules would bring the United States as a whole in line with gasoline sulfur levels already being achieved in Japan, South Korea, and most of Europe, as well as the State of California, which is in the United States for those that don't know that.

[Laughter.]

MR. MINOTT: The proposed rules will also have an economic benefit. Operating and maintaining new refining equipment will create over 5,000 permanent jobs, and installing new refining equipment will create more than 24,000 new jobs over the next three years. These are good paying American jobs.

NOx reductions from this proposed rule will benefit public health and reduce damage caused by acid deposition, reduce coastal rain eutrophication, and reduce visibility impairment. Not a bad deal.

The Council applauds EPA's proposed reduction of the annual average sulfur limits from 38 to 10 parts per million. I'm going to skip this.
The Alliance of Automobile Manufacturers, which includes BMW Group, Ford Motor Company, and others, has publicly stated that it supports "the lowest possible sulfur content at retail for uniformity at the pump for planning future technologies, and also to get the immediate benefit of existing vehicles as well as future ones, reducing sulfur poisoning of the catalyst and, therefore, minimizing exhaust emissions of the vehicle."

Bill Becker, the Executive Director of the National Association of Clean Air Agencies, a man not given to hyperbole, stated, "There is not another air pollution control strategy that we know of that will produce as substantial, cost effective, and expeditious emission reductions."

Thank you.

MR. GRUNDLER: Thank you very much. Let me see if my colleagues have any questions for the panel. [No response.]

MR. GRUNDLER: Thank you very much. Let me invite panel number two to come up.

Panel two consists of Tim Johnson -- at least
you didn't know, Tim, we added you -- Frank O'Donnell, Kevin Stewart, Patrick Kelly, Phillip Blakeman, Julie Becker, Jennifer McIntyre, Allison Chin, and Luke Tonachel. Welcome. Please fill out your place card.

Mr. O'Donnell, why don't you lead us off?

MR. O'DONNELL: I'd be delighted. Thank you very much. Good morning. I'm Frank O'Donnell, President of Clean Air Watch, a national non-profit organization aimed at promoting clean air cheaply through education.

Clean Air Watch is delighted to be here to support EPA's Tier 3 proposal. When it comes to clean air, this is the mother of all no-brainers. This plan would mean cleaner air and better health. Indeed we believe this is the single most effective step the EPA can take right now to reduce dangerous smog levels around the Nation. It would be like taking 33 million cars off the road.

This plan would also reduce deadly particle soot pollution, reduce asthma attacks, premature death, create thousands of jobs, and enable technologies to help us get better gas mileage, all for a cost that
credible studies put at a mere penny a gallon for gasoline. I think we'd all agree a penny is a pittance to pay for cleaner air.

There's no wonder this plan is supported by such a broad and diverse group: public health groups, environmental, consumer, science groups, State and local environmental officials, the auto industry both domestic and foreign, the makers of pollution control equipment, the United Auto Workers. Clean Air Watch is delighted to be in such esteemed company. Indeed, every relevant stakeholder group supports this initiative with one exception: the oil industry and some allied alleged think tanks that some might refer to as front groups.

I'll just note that they're wrong. You're going to hear today, I believe, from Navigant, who's going to critique some of the oil industry's current cost projections on this study, so I will hope that you'll listen carefully and then leave it to them. But I'd like to look at some of the past examples of what I would call crying wolf by the oil industry. Let's consider a few examples where they've been wrong.
When EPA proposed a phase out of lead in gasoline in the 1970s, the oil industry claimed there was no public health advantage to be gained, and that this would cause supply shortages. Not only was this sky is falling prediction dead wrong, we know now it was one of the best steps for public health ever made by the EPA. Taking lead out of gas reduced the risk of lead toxicity for hundreds of thousands of children. It also decreased the risk of heart attack and stroke. Oh, and we didn't have those supply shortages.

In 1999, when EPA proposed the so-called Tier 2 standards in allied sulfur and gas reductions, once again the oil industry claimed that clean up wasn't needed, and it would cause shut downs and supply shortages. In fact, in this case they even said it would threaten national security. Well, of course these problems didn't happen either. It was sheer nonsense.

Let's take a third example. In the year 2000 after EPA proposed clean diesel fuel standards, the oil industry again claimed -- now, can you guess -- that the cleanup wasn't needed, and it was cause refinery
shutdowns and supply shortages. Guess what? The exact opposite happened. The U.S. now exports clean diesel fuel because EPA stuck to its guns.

So I would just like to say let's learn from the past. This is not the United States of Amnesia, I hope. Let's remember the oil industry has cried wolf so many times in the past, always been wrong. It's doing it again here. Let's consider the massive health benefits of this plan that a lot of other witnesses have already talked about. We know that they dwarf the very modest costs.

We urge EPA to do the right thing here. Move ahead. Set the final Tier 3 standards and vehicle emission standards this year. And please listen to the cry of breathers for cleaner air, not the wolf cries of the oil industry.

Thank you very much.

MR. GRUNDLER: Thank you, Mr. O'Donnell.

Dr. Tim Johnson, you're next.

DR. JOHNSON: Thank you for allowing me to testify in support of this very important public health and policy proposal to dramatically and efficiently
1 reduce toxic emissions from vehicles and fuel.
2 My credentials are somewhat unique. I have
3 formally been tracking merging light duty, heavy duty,
4 and non-road vehicle emissions for more than 15 years,
5 emerging technologies, and have a valuable and unique
6 insight into what is coming in the future of emissions
7 and technologies. I read or listen to more than 400
8 technical papers a year on the topic, interact with all
9 the leading experts in the industry, including the oil
10 industry, analyze the data, and then write widely-read
11 technical review papers for journals, book chapters,
12 and top caliber technical conferences.
13 When I ask people how much more they'd be
14 willing to pay for a gasoline car that was virtually
15 non-polluting, the answer always comes back a couple
16 thousand dollars, 30 cents a gallon, but only if it's
17 mandated. People are invariably shocked when I mention
18 to them that it would cost only a few hundred dollars
19 more for the car, and only a couple cents a gallon, if
20 anything. They universally reply, do it. The Tier 3
21 proposal is a bargain at a nine to one benefit cost
22 ratio to society, and has strong public support.
Let me get technical. The fundamental catalyst problem we are talking about here is that sulfur is extremely surface active. It's unique to these types of chemicals. It absorbs readily on active catalyst sites, blocking the amazing action we need and want to clean up toxins. Surface active species are essentially -- are especially critical in low concentration ranges where most of the valuable active sites are sulfur poisoned in the sub 20 ppm sulfur range, depending on catalyst design. Dropping from 30 to 10 ppm sulfur can have a huge impact on catalyst performance and durability because of this fundamental physical chemistry behavior.

To be sure, we have cars today that are meeting the Tier 3 average fleet requirements with 30 ppm sulfur fuel. However, all these cars are small and compact. It is a very different story in trying to get a large vehicle to Tier 3 average emission levels. Not only are the catalysts compromised, but the sensors are affected, causing complexities in on board diagnostics, which are so critical to proper fleet emissions monitoring. We demand 150,000 durability in our cars.
1 High sulfur fuel makes this very difficult.
2 We also have catalyst formulations that are
3 not as sensitive to sulfur as others. This is partly
4 the result of unique formulations derived from --
5 through catalyst R&D. These formulations are usually
6 intellectual property of the developers. They do not
7 have 100 percent of the market share.
8 Further, for many reasons, the catalyst might
9 be designed differently to meet the the market or
10 technical requirements, or be placed in different
11 conditions. We all drive different vehicles with
12 different engines and different designs. The field is
13 very complex. This is why we need the low sulfur fuel
14 because the technologies and engines are becoming so
15 complex.
16 I just attended the SAE International Annual
17 Congress in Detroit. Fantastic. Developments are
18 coming very quickly, but -- very important -- most
19 researchers are using clean fuels in their development
20 of engines and catalysts. We will see commercialized
21 gasoline engines by 2020 that consume 20 to 30 percent
22 less fuel. These new engines are complex, and many are
lean, like diesel. Lean NOx mitigation for gasoline requires less than 10 ppm sulfur fuel. It doesn't make sense to tie one arm behind the back of the auto engineers by requiring them to use relatively dirty fuel. It's essential the U.S. refinery industry enter the 21st century by providing an average of 100 ppm fuel. Europe and Japan have had it for years. China is doing so now, and will have it throughout the country in 2017. And India and Brazil are considering moving in this direction.

It would be shameful if the U.S. still had 30 ppm sulfur and these countries have clean fuel. They all realize less than 10 ppm sulfur fuel is critical to clean vehicles. It all ties together.

Thank you.

MR. GRUNDLER: Thank you, Mr. Johnson. Dr. Johnson, I should say.

Next up will be Mr. Stewart. Mr. Kelly, you're on deck.

MR. STEWART: Good morning. I thank the hearing panel for your work here today. I'm Kevin Stewart. I serve as Director of Environmental Health
for the American Lung Association of the Mid-Atlantic. And I am representing not only the three million in our four-state service area who suffer from chronic lung disease, but also tens of millions more who desire to breathe clean air and so protect their good health.

And we thank the Environmental Protection Agency for its proposal of these long-awaited and much needed Tier 3 motor vehicle emission and fuel standards. And we most strongly insist and on the ground of the health you will protect and the lives you will save, that the EPA finalize and adopt these standards before New Year's Day 2014.

According to the American Lung Association "State of the Air" report released today, in our four-state service area of Delaware, New Jersey, Pennsylvania, and West Virginia, over 19 million people, almost 80 percent of the population, live in a county or a metro area earning at least one F for ozone or daily or annual fine particle pollution.

Eighteen million of these live in one of eight metro area listed among the worst 25 in the country for one or more of these pollutant measures.
And more than half of these populations fall into at least one of the sensitive groups that research is clearly recognized to be at increased risk from air pollution: infants, children, teens, and seniors, people with chronic lung and cardiovascular disease, people with diabetes, those living in poverty. These are the people at special risk, and in our region it is plain that they are among those most seriously at risk in the entire country.

In our service area alone, we estimate, based upon the analysis in this month's other report by the American Lung Association, "A Penny for Prevention: The Case for Cleaner Gasoline and Vehicle Standards," that by the year 2030, implemented Tier 3 standards would provide annually on the order of 400 premature deaths, 275 respiratory related ER visits and hospitalizations, 75,000 acute respiratory symptom days, including asthma days, half a million missed work or school days, and would save costs of perhaps over $3 billion, again annually.

The air pollution we're talking about controlling is not inconsiderable. In the national
inventory, about 20 percent volatile organic compounds, a third of nitrogen oxides, and over half of carbon monoxide are emitted by the single sector of highway vehicles. Yet we can make a serious dent in even these large chunks. Adoption of the Tier 3 standards would be equivalent to taking nearly one in seven vehicles off our roads.

In the "State of the Air" report, there are already some signs that we may be approaching a steady state situation with respect to control of pollutants, such as fine particle pollution and ozone, under the current control regime. Not only is there no guarantee that we as a Nation will continue making good progress toward meeting air quality standards, but there is some danger that we will fail to meet them at all if we do not act.

Indeed, as the October 2011 report on this subject by the National Association of Clean Air Agencies very plainly points out, the ability of States and localities to attain the 2008 ozone standard is tied directly to timely promulgation and implementation of Tier 3 standards.
Furthermore, the American Lung Association has been on record for years in its position that the current National Ambient Air Quality Standards for ozone mpm are all inadequate to protect public health, let alone contain a margin of safety that the law requires. It is for this reason that the American Lung Association and other medical groups support strengthening these standards as follows: the eight-hour ozone standard to 60 parts per billion, the 24-hour fine pm standard to no more than 25 micrograms per cubic meter, the annual pm standard to at most 11 micrograms per cubic meter.

Therefore, if we ensure that the NAAQS follow the law, i.e., so that they truly protect health in the way that the Clean Air Act requires, then this underscores NAAQS' point and makes the case for the Tier 3 rule all the more strongly. Remember, those millions of people already at risk, already living within a cloud of air pollution, protected only by standards inadequate to the task. These people, real parents and children, real neighbors and co-workers and friends, these people deserve relief from that
pollution's burden on disease and death.

A strong Tier 3 standard is clearly part of that solution. It is urgent that you adopt this rule, implement it, and bring some much relief.

Thank you.

MR. GRUNDLER: Thank you, Mr. Stewart.

Mr. Kelly?

MR. KELLY: Good morning, and thank you for providing the opportunity for API to testify at today's hearing on the Tier 3 rulemaking. I am Patrick Kelly with the American Petroleum Institute. API is the national trade association representing all segments of the U.S. oil and gas industry.

America's petroleum refining industry is a strategic asset, invaluable asset, for the United States. Maintaining a strong domestic refining industry is critical to the Nation's economic security. This rulemaking an have significant impacts on domestic refiners which are already heavily regulated.

API opposes the requirement to further reduce average gasoline sulfur with this Tier 3 regulation. This rulemaking is discretionary, and API has serious
doubts as to the Agency's justification for it.

API commissioned studies on the costs and benefits associated with further reductions in gasoline sulfur content, and found that they are not necessary for meeting more stringent vehicle emission standards, will yield little air quality benefits, and will impose enormous costs.

API has serious concerns with the EPA process for developing this rule. We have been insisting EPA demonstrate a scientific justification for two and a half years. One week ago today, EPA dumped over 600 documents into the docket, and prior to publishing this rule in the Federal Register, EPA published the comment deadline that gives us very little time to provide meaningful input.

EPA needs to extend, and we request that the EPA extends this comment deadline, to at least 90 days after the MPRM is published in the Federal Register or about mid-August. EPA needs to be transparent in rulemakings and not circumvent public participation in the process.

Reducing gasoline sulfur to an average of 10
parts per million is expensive. Research API shared with the Agency shows nearly $10 billion in capital costs. The annual compliance cost is about $2.4 billion, or six to nine cents per gallon in marginal costs. EPA should not consider these costs in a vacuum. Refiners need to balance these expenses with the cumulative costs of other Federal and States regulations.

API assessed the air quality benefits of the proposed standards and found the requirements would yield only very little additional reduction in ozone over the current regulations. The Tier 2 rule was a costly rule, but it yielded a measurable air quality benefit that continues to be realized as the fleet turns over. The prospect of spending an equivalent amount of money for a rule of a negligible air quality benefit just doesn't make sense.

Auto makers insist they need 10 ppm gasoline to enable lean burn GDI engines, and yet in Europe and Japan where 10 ppm fuel is available, lean burn GDI engine penetration peaked at about two percent and then tailed off. Research shows it maxing out at about
three percent of the U.S. fleet. Diesel sulfur was kept at 15 ppm to enable an emissions control technology that never took off in the marketplace. Don't make the same mistake with gasoline. Auto makers can meet the emission standards without further reductions to gasoline sulfur.

EPA's three-year lead time is grossly inadequate. Six years is workable. Five years is the absolute minimum. Three years is insufficient to ensure against market disruptions. Refiners are able to operate for about five years between turnarounds, which is the most efficient time to make major changes. A three-year lead time means that normal maintenance schedules are likely to be disrupted, potentially impacting gasoline supply and increasing the overall cost.

The so-called flexibilities proposed in the rule do little to offset the burden of compliance. Small refinery exceptions are of limited utility if pipelines set lower specifications, which is what happened in the Tier 3 rulemaking. The benefits of averaging banking and trading of the Tier 2 rule are
not comparable to Tier 2. The opportunity to generate
credits is limited by a refinery's existing equipment
and configuration. Tier 2 sulfur credits are still in
circulation, and it would be beneficial, and we request
that EPA publish aggregate data on the remaining Tier 2
sulfur credit balances in order to determine to what
extent an ABT program would provide or could provide a
benefit.

With such a short lead time, the opportunity
to generate sufficient credits to cover both the Tier 2
requirements and bank credits for Tier 3 between now
and January 2017 will be limited. Maintaining the
current sulfur cap is a reasonable approach, but won't
lower costs very much. The EPA should set a new
certification fuel as E10, not E15. It will be likely
the predominant fuel in the marketplace. I'm skipping
quickly.

Also on the certifying in a higher octane and
higher ethanol content fuel, EPA should not go ahead of
the requisite research and collaboration necessary to
set new fuel specifications. And I'm out of time, so
I'll skip my -- thank you for doing ppms.
MR. GRUNDLER: Thank you, Mr. Kelly.

[Laughter.]

MR. GRUNDLER: Dr. Blakeman, please.

DR. BLAKEMAN: Thanks. Thank you for the opportunity to speak today. I am Dr. Phil Blakeman. I am speaking today on behalf of Johnson Matthey, a catalyst company based just outside of Philadelphia. One of our main businesses is the development, design, and manufacture of catalytic systems for the removal of pollutants from vehicle and engine exhausts. And my role there is the technology director for that business.

Johnson Matthey strongly supports the Tier 3 proposals made by the EPA. They make an important substantial improvement to the quality of the air we all breathe. Catalyst has since 1975 been instrumental in limiting harmful air pollutants and smog causing gasses, with evident benefits for us all.

However, there are now more vehicles and more miles driven than ever before, offsetting some of the legislative improvements in emission abatement by sheer weight of numbers. The need for tightening of emission
limits is still strong.

The catalyst technology Tier 3 proposal is across the whole vehicle fleet. That's gasoline and diesel vehicles. It exists today, and it's already in the marketplace. New generations of catalysts are continually being developed, and they have further enhancements and performances. Implementation of these catalyst technologies to meet Tier 3 proposals is what our industry thrives on. We have a long track record of achieving these tighter emissions limits successfully, and this proposal would be no different.

Furthermore, California has already set in motion its own tightened emission limits known as LEV III, which are very similar to the Tier 3 proposal. This means our industry already has no choice but to implement technologies for LEV II that will clearly also meet the Tier 3 proposed limits. Thus, the adoption of the Tier 3 proposals would bring efficiencies to the industry by having one common set of emissions to achieve for the U.S. market.

One of the important aspects of the Tier 3 proposal is to reduce the sulfur level in the gasoline
fuel. Sulfur compounds cannot be transformed into something harmless in the way that a NOx molecule is, turning to NOx catalysts. Therefore, all sulfur emissions from the engine are bad for the environment, and the only way they can be prevented from entering the environment is by removal from the fuel itself.

Sulfur also poisons the efficiency of the catalyst for criteria emission control. To ensure that the full range of light duty vehicles comply with Tier 3 proposals, both at time of certification and during their use in the real world, the proposed lower gasoline sulfur levels, 10 ppm average, are needed.

The EPA has recently completed an excellent and extensive evaluation of sulfur effects on the current Tier 2 vehicle fleet that clearly shows significant emission benefits from reducing gasoline sulfur levels on those existing vehicles.

And as we move to the future, vehicle manufacturers are working hard to meet greenhouse gas requirements. Exhaust temperatures are expected to get cooler, exacerbating these sulfur poisoning effects on the catalyst. This remaining clean fuel is
increasingly important as we move forward.

Having low sulfur fuel may also enable new
technologies to be introduced, such as NOx absorber
catalysts, which are leading catalyst technology for
highly fuel efficient clean burning gasoline engines,
and need these ultra-low sulfur fuel levels to function
at peak effectiveness, and allow these engines to meet
their fuel economy potential. Sulfur in diesel fuel is
already limited to a maximum of 10 ppm for these
reasons, and sulfur and gasoline should also be limited
to the proposed 10 ppm average.

Adoption of this part of the Tier 3 proposal
would bring the U.S. in line with Europe and Japan, who
already have these low sulfur gasoline limits, and
places like China who have committed to bringing in low
sulfur gasoline by the end of 2017.

In summary, it is the view of Johnson Matthey
that the Tier 3 emissions limits and fuel sulfur
proposals will bring significant benefits to the public
health and the environment. Thank you.

MR. GRUNDLER: Thank you very much.

Julie Becker?
MS. BECKER: Good morning. My name is Julie Becker, and I'm Vice President for Environmental Affairs at the Alliance of Automobile Manufacturers, an association of 12 OEMs. It represents about 75 percent of the U.S. market.

I want to thank Chris Grundler and his staff for holding this hearing and for all the many hours they have spent with our industry and with the other stakeholders to help us understand this very complex proposal. And I also want to thank the California Air Resources Board for its role in coordinating with EPA to help ensure harmonization of the LEV II and Tier 3 regulations.

The Alliance appreciates the fact that EPA is working here to achieve one national program so that a vehicle can be tested once, certified once, and then sold anywhere in the United States. EPA's proposal would ensure needed fuel quality to enable both near zero emissions for new vehicles and reduced emissions for all vehicles already on the road today.

These rules are challenging. They require large investments. According to EPA, auto makers will
spend about $15 billion in just 10 years to meet the requirements of the proposed rule and effectively remove tailpipe emissions from the environmental equation. And according to EPA, this rule, combined with the fuel economy and greenhouse gas program would bring the auto industry's overall investment in the vehicle emission reduction programs through 2025 to more than $216 billion. That's 100 times the investment that the oil industry is being asked to make under this rulemaking.

So why do auto makers support this proposal? Well, Tier 3 brings a harmonized approach, as you've heard today. It builds upon the successes we've had in the national greenhouse gas and fuel economy programs. It stays true to the simple principle of providing the cleanest vehicles to everyone nationally. And it provides the fuels that we need.

EPA acknowledges that reducing the sulfur content of gasoline to 10 part per million average is a hugely important component of the proposed rule. We agree. We know that sulfur inhibits the catalytic converter's ability to reduce emissions. Lower sulfur
fuels at the pump mean fewer exhaust emissions in the air. It's that simple.

Further, sulfur reductions in the market fuels produce day one benefits. So while it will take a couple of decades for the current fleet to be replaced by Tier 3 compliant vehicles, reducing sulfur at the pump immediately will reduce emissions from every gasoline powered vehicle on our road, no matter how old.

On the CAFÉ and greenhouse gas front, EPA has repeatedly said that it expects the majority of greenhouse gas emission reductions and the corresponding fuel economy increases will come from advancements in internal combustion engines, gasoline engines, and that cleaner fuels are needed to facilitate lean burn technology, a pathway towards more efficient gasoline internal combustion. To meet the challenging standards for greenhouse gas, auto makers will need to have every tool in the toolbox at their disposal, including lean burn.

One final point on sulfur. You've already heard it this morning, and that is that we have fallen
behind other countries. The proposed rule would help Americans to get gasoline with sulfur limits approaching 10 parts per million cap, which is like the retail sulfur -- the retail levels of sulfur already available in Europe and Asia.

For years, the auto industry has worked to provide consumers with cleaner vehicles, and we've had terrific results. Already we've reduced smog forming emissions by 99 percent. The proposed rule, as you heard earlier, seeks to cut remaining emissions by about 70 percent. But as EPA explains, the ambitious goal requires both advanced catalytic converters and ultra-low sulfur fuels.

While much progress has been made, even more could be done to harmonize with California's rule, vehicle emission requirements to harmonize the certification fuels and to improve fuel quality. And we intend to respond to this very long and complex proposal with written comments that will contain specific constructive suggestions.

But our key message is this: EPA should continue to treat vehicles and their fuels as a system
so that our clean vehicles can have the clean fuels
they need. Thank you very much.

MR. GRUNDLER: Thank you, Ms. Becker.

Jennifer McIntyre?

MS. MCINTYRE: Good morning. My name is Jen
McIntyre with Mom's Clean Air Force. The time has come
to update our standards for passenger vehicles to
better the health of American families. I strongly
support the new Tier 3 standards and urge the timely
implementation of the proposed rule. The rule has
broad support from the United Auto Workers to the
American Lung Association to the Union of Concerned
Scientists.

We cannot continue to accept bad air days as
a normal part of life. This rule would begin to
improve air quality and result in significant health
benefits for children and those with lung and heart
problems. We know that in Pennsylvania, more than
22,000 children attend schools that are located within
200 meters of a major roadway.

Nothing can prepare a parent for the terror
of watching a toddler unable to breathe during an
asthma event. Both of my young daughters suffered from frequent flare-ups when we lived close to I-95. We have since moved and their health is much better. Now they have flare-ups once or twice per year compared to once or twice per month. In order to open their airways during an asthma flare-up, strong and harmful medications must be administered that have serious side effects. But breathing is more important, so the harmful medicines are taken by millions of children.

Let's send a message to those children that we do care about their health and safety and quickly implement the new Tier 3 standards. Let's tell them they're worth much more than a penny per gallon.

Thank you for the this opportunity to comment.

MR. GRUNDLER: Thank you.

Allison Chin?

MS. CHIN: Thank you for the opportunity to testify. I'm Allison Chin, President of the Sierra Club. With 2.1 million members and supporters, the Sierra Club is the Nation's oldest and largest grass roots environmental organization. On behalf of all of
our members, I want to applaud the Environmental Protection Agency for proposing strong Tier 3 cleaner tailpipe standards that will significantly reduce smog forming pollution, saving lives, preventing asthma attacks, and giving Americans cleaner air to breathe.

Over the past decades, we have made substantial progress in cleaning our air, in part by transitioning from dirty fossil fuels to clean renewable energy. Still today, more than one in three Americans lives where the air is sometimes unsafe to breathe. Air pollution causes a host of serious life threatening health problems, including asthma, heart disease, cancer, neurological problems, and more.

Much of this health threatening pollution comes from our passenger cars and trucks, which remain the second largest source of smog forming pollution. These vehicles emit more than half of all carbon monoxide pollution and contribute significantly to deadly particulate matter and other pollution that causes asthma and other respiratory diseases.

The proposed Tier 3 standards will provide a wide array of benefits. I'd like to briefly touch on a
few. First, cleaner tailpipe standards will protect public health by requiring refiners to produce lower sulfur gasoline and by requiring auto makers to use advanced pollution control technology. Tier 3 standards will produce substantial reductions in health threatening pollution. According to a study by the National Association of Clean Air Agencies, cleaner tailpipe standards have the potential to cut emissions of nitrogen oxides, carbon monoxide, and volatile organic compounds from passenger vehicles by 29, 38, and 26 percent, respectively, by 2030.

It's important to note that reducing the sulfur content of gasoline will have immediate health benefits when new standards go into effect in 2017. Cleaner burning gasoline will reduce emissions of nitrogen oxides from existing cars by more than 260,000 tons, the equivalent of taking 33 million cars off the road.

These pollution reductions will provide very real health benefits. According to the EPA, the proposed standards would prevent up to 2,400 premature deaths, 3,200 hospital visits, and 2,200 asthma attacks
annually by 2030. Further, the standards would prevent
1.8 million lost school and work days.

Secondly, cleaner tailpipe standards will provide economic benefits. With cleaner air, the
proposed standards will provide substantial health benefits. According to EPA, the annual monetized value
of health benefits could be as large as $23 billion. Further, the new standards will bring more American
jobs as parts suppliers develop and build new technologies and refiners and auto makers install it.

According to a study by Navigant Economics, implementation of cleaner tailpipe standards would
create nearly 5,300 permanent jobs in the operation and maintenance of new refining equipment, as well as more
than 2,4000 new jobs over a three-year period as refineries install new equipment.

Third, only big oil opposes these health protecting standards. Everyone from auto makers and auto workers to public health agencies and the American public recognize the connection between cleaner cars, jobs, public health, and a stronger economy. The only ones opposed to these standards are oil companies that
oppose anything that would require them to clean up their act.

While the American Petroleum Institute's scare tactics claim that these standards would cause gas prices to skyrocket, independent studies have shown that these standards can be achieved for less than a penny a gallon. This is a clear case where we can clean our air, protect our public health, and create jobs by reducing pollution from our cars and trucks.

In conclusion, the proposed cleaner tailpipe standards will substantially reduce health threatening pollution from our cars and trucks. By giving Americans cleaner air to breathe, these standards will save lives, prevent asthma attacks, and reduce lost work and school days. Further, developing manufacturing and installing advanced refinery and auto technologies will create jobs all while achieving the standards for less than a penny a gallon. I applaud the Environmental Protection Agency for proposing these strong Tier 3 cleaner tailpipe standards, and urge you to finalize them as soon as possible.

Thank you again for the opportunity to
MR. GRUNDLER: Thank you, Ms. Chin.

Mr. Tonachel?

MR. TONACHEL: Good morning. Thank you for the opportunity to testify today. My name is Luke Tonachel, and I'm a Senior Analyst with the Energy and Transportation Program at the Natural Resources Defense Council. I am pleased to be here on behalf of NRDC's 1.3 million members and online activists.

The Tier 3 gasoline sulfur and clean vehicle standards proposed by EPA are common sense steps forward for public health and the environment. The Tier 3 standards are part of the solution to a problem that we know must be addressed. Over 100 million Americans are exposed to unhealthy air and live in areas that fail to attain one or more health-based ambient air quality standards.

Considering these facts, EPA has an obligation to set stronger standards on vehicles and fuels to cut pollution that endangers public health and welfare. By proposing standards that reduce gasoline sulfur to 10 parts per million and tightening auto
emission standards, the Agency has taken the right
approach, one that connects the vehicle emissions with
the fuel and treats them as a system. It is clear that
the U.S. will only achieve the largest cost-effective
reductions from cars and trucks if both the vehicles
and their fuel are cleaned up.

The oil industry, through their lobbying
association of the American Petroleum Institute, has
questioned the value of reducing sulfur from gasoline.
The oil industry wants us to ignore the benefits of
cleaning up gasoline, but the benefits are clear:
cleaner gasoline will immediately cut hundreds of
thousands of tons of smog forming emissions annually
from the on road stock of vehicles as their exhaust
systems become more effective. Cleaner gasoline will
also enable auto makers to design new vehicles to meet
more stringent tailpipe standards. Further, cleaner
gasoline preserves the ability of auto makers to pursue
the broadest range of technologies to meet the landmark
54 and a half mpg equivalent standards to cut global
warming pollution and oil consumption.

The Tier 3 standards will avoid thousands of
1 premature deaths and result in public health benefits
2 of $8 to $23 billion annually by 2030. These benefits
3 far outweigh the costs of the Tier 3 standards.
4 Still, however, the oil industry claims that
5 the Tier 3 sulfur reductions are too expensive. It
6 appears that the industry believes that the public
7 health protection should only be pursued if they can
8 generate huge profit margins for the industry. API
9 recently estimated the cost of complying with Tier 3
10 sulfur requirements at six to nine cents per gallon.
11 EPA estimates the average cost at less than a penny, or
12 .9 cents per gallon using the API assumptions. Most of
13 the difference between the API and the EPA estimates is
14 API's projected profit margin.
15 As EPA described in the draft regulatory
16 impact analysis, API's cost estimate assumes a profit
17 of four to seven cents per gallon, which translates
18 into $4 to $8 billion in windfall profits for the oil
19 industry each year. NRDC estimates that the oil
20 industry is projecting an astounding rate of return on
21 investment of 180 to 340 percent.
22 The API high cost estimates have the
potential to raise concerns of industry investors, and
some refining companies are backing away from the API
estimates to present more realistic figures. For
example, Valero Energy, which is the largest
independent refiner in the U.S., recently told a group
of financial analysts that its Tier 3 compliance will
cost to $300 to $400 million. A finance expert
colleague of mine at NRDC used the EPA's marginal cost
assumptions and found that the $400 Valero cost claim
would equate to a compliance cost of approximately .6
cents per gallon, more than 10 times less than the API
high estimate.

For Valero, the .6 cent per gallon translates
into annual costs of about $95 million, or just two
percent of the four and a half billion in pretax
earnings that the company made on refining in 2012.
While Valero and other companies point out the cost of
compliance is minimal, API continues to inflate costs.
Regulatory cost inflation is part of their history.
By exaggerating costs, API has attempted to scare
consumers into potential large gas price increases at
the pump.
The reality is that these large increases don't appear. According to a peer review report by EPA, API's estimates of compliance costs for previous clean fuel regulations adopted in the 1990s have been 3.6 to 6.4 times higher than the actual observed price changes. Similarly, a recent study by Navigant Economics found that the Tier 2 gasoline sulfur regulations, which API estimated would cost about three cents a gallon, have had no discernible impact on retail prices.

API's proposal and supporting analysis has found that the Tier 3 rules would deliver large environmental and health benefits that far outweigh the minimal costs. NRDC recommends that EPA continues to move forward and finalize strong Tier 3 standards by the end of the year. Thank you very much.

MR. GRUNDLER: Thank you. Let me turn to my panel and ask if they've got any questions for the witnesses.

MR. MACHIELE: Just a couple of questions, one for Patrick Kelly. Did you say that the annual cost from your study was $2.4 billion?
MR. KELLY: The annual compliance costs. That includes the -- it is the annual cost of compliance and includes capital recovery.

MR. MACHIELE: And so what is that in terms of cents per gallon then because that's the average cost then?

MR. KELLY: That's a total cost, the $2.4 billion. And it equates to a six to nine cent per gallon marginal cost in most markets. Does that answer your question?

MR. MACHIELE: I guess -- well, what is the $2.4 equate to in terms of an annual -- in terms of cent per gallon?

MR. KELLY: In marginal costs, it would be six to nine.

MR. GRUNDLER: Do you have an average cost?

MR. KELLY: We didn't do an average cost. While average cost is an important factor, in commodity markets, when all of the demand is needed for that commodity, the marginal cost is very relevant in setting the market price. And so, therefore, we looked at the marginal cost because of its importance to the
MR. MACHIELE: Okay. Thanks. Mr. -- Dr. Blakeman, did you say that future vehicle technologies will have lower exhaust temperatures and will need to lower sulfur even more? Is that what I was hearing?

DR. BLAKEMAN: Yes. You know, the trend to get more efficiency for greenhouse gas, you're taking energy from the exhaust, which lowers the exhaust temperature. And so that means that lower temperature sulfur gets even more sticky and sticks to the catalyst more strongly, and so impacts its performance potentially more.

MR. MACHIELE: Okay. Tim, did you want to elaborate?

MR. JOHNSON: Yes. Just to highlight the urgency of this trend towards lower exhaust temperatures, the U.S. Car Consortium, made up of the big three auto companies, called industry experts into Detroit in December, a call to arms to the industry to develop catalysts that will perform 90 percent removal of emissions at 150 degrees centigrade. That's about 100 degrees lower than we have today.
So the industry is clearly seeing directions towards low temperature exhaust gas, and is mounting a huge unprecedented campaign in the industry to get movement into low catalyst technologies. Sulfur is, as Phil said, absolutely the worst component that is in the way.

MR. MACHIELE: Thank you.

MR. GRUNDLER: Any more questions?

[No response.]

MR. GRUNDLER: Thank you, panel two, for your time. It was very helpful.

Panel three we're adding two people: John German and Jody Bender. Please come on up along with Shannon baker-Branstetter, Bob Babick, William Woebkenberg, Gary Emmett, Jan Koninckx, Nancy Seidman, Caroline Paulsen, and Meghan Higgins. Don't forget your name tags.

Welcome. I'm going to ask Ms. Bender to lead off.

MS. BENDER: Thank you very much. Good day.

I am Jody Bender, a board member of the League of Women Voters of Philadelphia. I will soon be elected
as a board member of the League of Women Voters of Pennsylvania. On their behalf, I am speaking today and wish to thank you for the opportunity to provide input on this critical issue.

Based on our national position on air quality, the League supports measures to reduce vehicular pollution, including inspection and maintenance of emissions controls, changes in engine design, and fuel types, and development of more energy efficient transportation systems. The proposed regulations to reduce emissions and strengthen fuel efficiency for new cars and trucks continue to keep us on the road to improving public health and the environment.

Spring is in the air in Philadelphia. However, there is a whole lot more than the aroma of fragrant blossoms. The Philadelphia region and Pennsylvania as a whole have the dubious distinction -- excuse me -- of being among the smoggiest areas in the nation. This resulted in hundreds of thousands of people being at risk of health-related diseases, such as asthma, chronic bronchitis, and emphysema. Cleaner
cars and trucks would make a difference; thus, the
League supports these new emission standards and
vehicle fuel standards that lower sulfur content.

Cleaner air boosts, not dampens, the economy.
The potential cost of paying more at the pump during
these difficult economic times is but a drop in the
bucket when compared to the billions of dollars spent
on the direct health care, lost economic productivity,
and squandered on absent students, all resulting from
poor air quality. The citizens of our commonwealth and
across the Nation are depending on you, the
Environmental Protection Agency, to safeguard our air
and protect people's health.

With the alarming rise of pollution-related
asthma attacks, heart attacks, and shortened life
spans, enacting these proposed Tier 3 standards is
truly a matter of life and breath.

Thank you.

MR. GRUNDLER: Thank you.

Shannon Baker-Branstetter, please.

MS. BAKER-BRANSTETTER: Thank you and thank
you to the EPA for their hard work and thorough
analysis on this rule. I'm Sharon Baker-Branstetter, Policy Counsel for Consumers Union, the Policy and Advocacy Division of Consumer Reports. Consumers Union supports the proposed Tier 3 standards because they are good for air quality, public health, and car owners.

Consumer Reports conducts comprehensive tests of approximately 80 new vehicles every year, which we buy anonymously at retail. We provide consumers with objective comparative ratings about performance, fuel efficiency, safety, and reliability of these vehicles.

We do not accept outside advertising. Consumer Reports has more than eight million subscribers to our magazine, websites, and other publications.

Reducing sulfur and gasoline and cutting tailpipe emissions will provide outstanding benefits to public health. Over 150 million Americans breathe unhealthy air, and a major source of this pollution is passenger and heavy duty vehicles. On average, Americans spend over an hour traveling roads every day.

Living, working, or going to school near major roadways increases exposure to ozone and particle pollution that worsens lung and heart health and causes
thousands of premature deaths every year. In addition

to the tremendous health benefits of the proposed rule, car owners will also see significant improvements.

Lowering the sulfur content in gasoline cleans up exhaust from older vehicles. It also reduces corrosion of emissions control systems for existing vehicles, and increases the life span of catalytic converters, which can cause hundreds to thousands of dollars to replace. The national average replacement cost of a catalytic converter is approximately $1,400.

New car buyers will also benefit. The proposed rule offers auto makers an incentive to go beyond the minimum eight-year, 80,000 mile warranty currently required for emissions control systems, and extend it to 15 years, 150,000 miles for new vehicles, which could improve reliability and lower costs to maintain emissions control systems. Low sulfur gasoline also enables auto makers to develop a greater array of technology, such as lean burn, to meet emissions and fuel economy standards more creatively and at a lower cost.

The very modest cost of these clean car
standards is well worth it. Addressing gasoline and
together as a system further improves the cost
effectiveness of reducing emissions. According to your
Agency, when the standards are fully implemented by
2025, the standards will likely add less than $150 per
vehicle, and less than one cent per gallon to gasoline
costs.

However, the benefits greatly outweigh these
costs. By 2030, the annual health benefits would be
between $8 and $23 billion, double to seven times the
costs. It would be penny wise, tons foolish, to save a
cent on gasoline only to have to pay even more with our
health as a result of additional tons of pollution. To
put the costs in perspective, over the last four years,
gasoline prices fluctuated over $2 per gallon, with
weekly increases of 10 cents happening with regularity.
EPA estimates the cost of cleaner gasoline
will be less than one cent per gallon. By comparison,
failing to maintain proper tire pressure can waste the
equivalent of 11 cents per gallon. By speeding or
aggressive driving -- a driver of a typical could bleed
20 to 40 cents per gallon. A roof rack, 60 cents per
gallon. Meanwhile, fuel economy standards are poised to save consumers the equivalent of $1.30 per gallon by 2025. The proposed clean car standards provide a great service at an outstanding value.

In summary, this common sense rule is good for our health and good for car owners. We urge you to finalize the rule so it can apply to 2017 models and be in sync with fuel economy standards. Thank you.

MR. GRUNDLER: Thank you.

Mr. Babick? Mr. Woebkenberg, you're on deck.

MR. BABICK: Good morning, everyone. My name is Robert Babick. I'm the Director from Environment Energy and Safety Policy, General Motors. We at General Motors have truly embraced the call for more environmentally friendly vehicles. This is evident from our groundbreaking Chevrolet Volt, the world's first mass produced extended range electric vehicle. The Volt is just one piece of a broader electrification strategy that includes the Chevrolet Spark, pure EV, the Cadillac ELR luxury EREV, and various hybrid offerings. GM is an industry leader in the plug-in sales, and we intend to keep it that way.
We are continuing to follow our principle of energy diversity as we produce numerous E85 flex fuel vehicles, diesel vehicles, including the new 2014 Chevrolet Diesel Cruz, and CNG offerings in our full-size pickups and van segments.

We're also introducing more improvements to conventional technology. Our engineers are working around the clock to simultaneously improve the fuel economy in greenhouse gas emissions, criteria missions, and safety of all of our products.

That brings me to the key reason we are here today, working closely with the EPA and the other stakeholders to achieve a harmonized and appropriate structure Tier 3 program. The establishment of a single national standard for fuel economy and CO2 regulation was quite simply a much needed breakthrough that will enable more timely and efficient introduction of technologies customers, manufacturers, and regulators want to succeed.

We know that EPA and California are committed to further reducing tailpipe criteria emissions, and in order to achieve the level of reduction proposed, our
vehicles will be so clean there will be no reason to have competing regulatory requirements.

Our precious engineering resources are already stretched thin, and requiring them to design, develop, and certify two of everything I think we can all agree is counterproductive. We need to be able to focus on developing one of everything, which we can then sell throughout the U.S. to provide everyone here the cleanest vehicles in the world. A harmonized Tier 3 program properly structured can achieve this.

Another key aspect of the proposal is the cleaner fuels that are included. Auto makers will need these cleaner fuels to meet the stringent Tier 3 emission standards EPA and California envision. We must have clean fuels because the vehicles and fuel function as a single system in determining the emission performance of the vehicle.

As EPA moves ahead to finalize the Tier 3 requirements, GM believes the provision for low sulfur fuel levels and other clean fuel properties is essential, as is outlined in the Alliance's comments. And while clean fuels are needed to meet the Tier 3
standards on new vehicles, they also provide the added
benefit of reducing emissions immediately across the
entire on road fleet.

Finally, we would like to see some changes to
the MPRM. For example, there are a number of things
that are not harmonized with California's LEV III
requirements that we will be asking to be harmonized.
So we will continue to review the MPRM and work through
the Alliance to submit detailed written comments to
EPA, and I appreciate your time and attention.

Thank you.

MR. GRUNDLER: Thanks, Bob.

Bill? Jan, you're on deck.

MR. WOEBKENBERG: Good morning. My name is
Bill Woebkenberg, and I'm responsible for Fuels,
Technical, and Regulatory Affairs in the U.S. for
Mercedes-Benz Research and Development, North America,
which is an indirect, wholly-owned subsidiary of
Daimler AG, the global manufacturer of Mercedes-Benz
vehicles and a leader in clean, efficient vehicle
technology in the U.S. and the world.

Our product portfolio includes a full range
of models equipped with BlueEFFICIENCY gasoline and
gasoline hybrid power trains, BlueTEC clean diesels,
and F-CELL hydrogen-powered fuel cell vehicle in
California.

Mercedes-Benz thanks the EPA, and especially
Chris Grunler and his time, for the time and
dedication in the creation of this rulemaking.
Additionally, Mercedes-Benz wishes to acknowledge the
effort required for the EPA to include automobile
manufacturers as stakeholders in the formation of this
proposal.

Treatment of fuel as a part of this system in
total criteria emissions and greenhouse gas reduction
is an important acknowledgment by the EPA that
improvements proposed by Tier 3 rulemaking are possible
when all contributing factors are examined and
optimized. Sulfur reduction is one such factor in
which Mercedes-Benz supports the EPA's incorporation of
a 10 ppm annual average for gasoline in the Tier 3
proposal. This advancement in fuel quality will
immediately benefit the existing vehicles on the road
by improving the function of catalytic converters and
decreasing the formation of smog producing pollutants. In 2006, Mercedes-Benz first capitalized on the value of low sulfur gasoline and the reduction to fuel consumption it enables when it introduced in the EU the 350 CGI CLS luxury sedan, which is equipped with stratified lean burn combustion. Depending on the driving mode, engine speed, and load, gains in the fuel efficiency can range between five and 15 percent as compared to conventional stoichiometric combustion. Incorporation of this technology in the EU is enabled by a 10 ppm refinery limit in comparison to the 10 ppm annual average as proposed in the Tier 3 rulemaking.

Lean burn combustion among those technologies necessary to accomplish a nearly 50 percent reduction in greenhouse gas emissions requires low sulfur gasoline for peak efficiency. Fuel efficiency gains in CO2 reductions of this magnitude required by the greenhouse gas mandate are enabled by lean burn combustion, illustrate the importance of this technology and the universal availability of low sulfur gasoline in the U.S. to the Daimler Greenhouse Gas Compliance Plan.
But sulfur reduction is not a lean burn discussion. Even existing power train architectures, including downsized turbocharged gasoline direct injected engines would also benefit from reduced sulfur and fuel, so no longer would a portion of the fuel savings realized need to be expended by periodically burning off sulfur to maintain optimum effectiveness in exhaust after treatment systems.

Additionally, prior testimony highlights the fact that power train technologies which increase efficiency result in core exhaust gas temperatures, which promote sulfur deposition and inhibit burn off. Thus, the effect of low sulfur on the current fleet is immediate and enduring. No other single step can provide retroactive and future benefits in criteria emissions and greenhouse gas reduction.

Looking forward, there are other significant elements regarding future fuels and ultimately engine design which can have a large impact on greenhouse gas compliance. The unprecedented increase in CAFÉ standards and the associated greenhouse gas requirements are driving a dramatic reduction or
1 downsizing in engine size and number of cylinders.
2 One aspect not reduced is the customer
3 expectation of performance, even in the wake of
4 regulations mandating improved fuel economy. Thus,
5 another key enabler in reducing greenhouse gas
6 contributions while maintaining performance is
7 increased octane and gasoline. Octane is the single
8 most important property in gasoline when determining
9 engine design. Higher octane fuels permit higher
10 compression ratios which directly improve efficiency.
11 Downsizing engines also results in greater fuel
12 efficiency.

13 The optimized combination of these two
14 actions with gasoline direct injection provides
15 remarkable gains in fuel economy, but requires high
16 octane market fuel, higher octane than is available
17 today. Additionally, higher octane traditionally
18 provided through selective petroleum refining and
19 blending can also be further increased through the
20 addition of ethanol and blends greater than 20 percent
21 by volume. This powerful fuel enjoys both reduced
22 carbon intensity as well as the renewable aspects of
ethanol.

A vehicle equipped with a power train, which is optimized for a high octane mid-blend ethanol fuel can simultaneously fulfill what the customer desires, performance and economy, while reducing the environmental impact. In fact, Mercedes-Benz vehicle offerings include those with E-25 capability in various global markets, and can introduce them in the U.S. if regulatory and commercial conditions warrant.

To summarize, the synergy of mid-blend ethanol and higher octane based fuel in the proposed rulemaking opens the door to far greater possibilities in greenhouse gas and criteria emission reduction.

Mercedes-Benz fully supports these proposed changes in certification and market fuel, and will provide detailed written comments containing specific recommendations to help advance this effort. Mercedes-Benz, with its industry leading fuel injection and engine technology, will take full advantage of fuel economy and greenhouse gas possibilities enabled by this opportunity.

Thank you.
MR. GRUNDLER: Thank you, Bill.

Jan, please.

MR. KONINCYKX: Good morning. My name is Jan Koninckx. I'm the Business Director for Biofuels for DuPont. I'm pleased to be here today to provide feedback to the EPA on the proposed Tier 3 motor vehicle emissions and fuel standards rule. I'm here to discuss also the bright future for renewable fuels in the United States, and the Tier 3 proposed rule includes a number of provisions that can support making renewable fuels more widely available and economically competitive. Expanding renewable fuels will ultimately drive reductions in air pollutants, a target of the Tier 3 rule.

One brings a perspective of a company deeply involved in the agricultural and biofuels industries. Our seed business, DuPont Pioneer, sells corn seed to farmers growing for a variety of end use markets, including grain ethanol production. Our intimate relationship with our farmer customers and our extensive research provides us with significant insight into the economics of the harvest and the management of
corn stover as a cellulosic feed stock. We provide a
variety of products for the grain ethanol business as
well, and so have an intimate knowledge of the
operation of the sugar fermentation operations.

And one of DuPont's renewable fuels is
cellulosic ethanol. We've been developing our
technology for a decade. Since 2009, we have operated
a demonstration facility in eastern Tennessee,
producing ethanol from both corn stover and switch
grass. The experience has made us very confident in
our technology and the engineering for a commercial
scale facility.

This work has culminated in our construction
of a 30 million gallon per year facility located in
central Iowa, that is scheduled to begin producing
cellulosic ethanol next year from corn stover. We're
also demonstrating the production of cellulosic ethanol
from switch grass, as I indicated just earlier.

In addition to DuPont's cellulosic volumes,
we anticipate a number of other countries doing the
same. Multiple companies are constructing, starting
up, or operating facilities producing renewable fuels
from a wide variety of cellulosic feed stocks, including corn stover, switch grass, wheat straw, municipal solid waste, and wood fiber. This diversity of operations provides a high level of confidence of multiple technology succeeding at commercial scale. We anticipate that cellulosic renewable fuels production will expand quite rapidly once technologies have been proven at commercial scale.

Now, by enacting the RFS, Congress had a forward looking 15-year policy intending to incent the large-scale development of renewable fuels in the U.S.. And the existing suite of these policies, of which the RFS is a significant component, has been very successful in standing up the U.S. biofuel industry that is making a material contribution to U.S. energy security and reducing the environmental footprint of transportation.

We have to remember that we started down the road of alternative transportation fuels because of the variety of security, environmental, and economic ramifications of our dependence on petroleum. Those challenges have only grown more acute, and we're making
solid progress. Future growth and biofuel supply will now come largely from non-food related feed stocks. There are a number of provisions in the Tier 3 proposed rules that will achieve the desired reduction in air pollutants, but also support the objectives of the RFS, and if carefully implemented, can make renewable fuels more widely available and economically competitive. First, DuPont supports EPA's proposal to set E-15 as emissions test fuel for light duty cars and trucks, as well as heavy duty gasoline vehicles. The EPA must create the requisite incentives for auto manufacturers to pursue advanced engine technologies. Setting E-15 as the test fuel is a step in the right direction. The Tier 3 rule objectives go hand-in-hand with CAFÉ standards, and would create the flexibility that automobile manufacturers need to comply with both CAFÉ and the Tier 3 rule.

The purpose of the CAFÉ standards is to reduce energy consumption that will help address our country's dependence on imported oil, save consumers money at the pump, and reduce emissions of greenhouse gases that contribute to global climate change. Higher
ethanol blends will help make significant contributions to these objectives.

EPA is requesting comments on alternative approaches to implementing E-15 as the test fuel. Two of the options include requiring E-15 to be available on the market before transitioning. Instead, DuPont suggests that EPA sets a specified future date for transitioning to E-15 as a test fuel.

The second provision that could encourage larger volumes of renewable fuel involves allowing vehicle manufacturers to request approval for alternative certification fuel, such as E-30. And that would give vehicle manufacturers the requisite flexibility to improve vehicle efficiency for purpose of complying with the 2017 rules.

We support allowing vehicle manufacturers to request approval for alternative certification fuels, higher octane fuels, because ethanol cannot be used as an octane booster. High octane petroleum fuels are more expensive than gasoline with an 87 rating. But higher ethanol blends with higher octane should cost less per gallon than regular gasoline.
I thank you for the opportunity to speak about the important provisions of the Tier 3 motor vehicle emissions rule standard.

MR. GRUNDLER: Thank you.

Nancy Seidman, welcome.

MS. SEIDMAN: Good morning, Chris and the panel. At least I think it's still morning. My name is Nancy Seidman. I'm an Assistant Commissioner of the Massachusetts Department of Environmental Protection, and I'm here today as Co-Chair of the Mobile Source and Fuels Committee of NACAA, the National Association of Clean Air Agencies, a national nonpartisan, non-profit association of air pollution control agencies in 43 States, D.C., four territories, and over 116 metropolitan areas.

On behalf of NACAA, thank you for this opportunity to testify on EPA's proposed Tier 3 vehicle emissions and fuel standards. NACAA strongly supports EPA's Tier 3 proposal. We do so because we know of no other strategy that can achieve such substantial, immediate, and cost-effective reductions in air pollution as Tier 3.
More than 158 million across the Nation currently live in areas where they breathe -- where the air they breathe violates at least one of the health based National Ambient Air Quality Standards. Mobile source emissions, including those from passenger cars and light trucks that are the focus of Tier 3, are a primary contributor to these violations, playing an especially central role in elevated levels of ozone and fine particulate matter.

These vehicles also contribute to toxic air pollution, regional haze, and the eutrophication of water bodies. The emission reductions that would result from the proposed Tier 3 program will benefit the citizens in every State and locality across the country.

In October 2011, NACAA published a study documenting the costs and air quality benefits of Tier 3 of a Tier 3 program modeled on California's Low Emission Vehicle III program, including tighter tailpipe standards and an average gasoline sulfur standard of 10 parts per million. We detailed how reducing sulfur in gasoline will enable the use of
1 improved emissions control technology on new cars and
tucks, and result in an overnight reduction in
emissions from the existing fleet on the order of
nearly 300,000 tons of NOx. This is the most
significant reduction in on road air pollution
emissions EPA has proposed in many years.

By 2030, the Tier 3 program would result in
even more substantial reduction in on road mobile
source emissions of criteria and toxic air pollutants.
In addition, the emission reductions will continue to
accrue beyond 2030 with a turnover of the vehicle
fleet. While the emission benefits of Tier 3 are very
high, the costs of the program are very low. NACAA
predicted an increase in the cost of gasoline of less
than a penny a gallon, and EPA has found the same.

Opponents of Tier 3 contend that the cost of
low sulfur fuel will not be less than a penny a gallon,
but between six and nine cents per gallon. However, in
making this estimate, they did not account for the
mitigating impacts of EPA's proposed set of
flexibilities, all of which have proven successful in
prior fuel programs adopted by the Agency. In terms of
Tier 3 vehicle control technologies, NACAA estimated the cost to be about $150 per vehicle. EPA has found the cost to be even lower at $130 per vehicle in 2025.

In all, EPA expects the monetized benefits of the Tier 3 program to far outweigh the total annual program costs by about seven to one.

In its draft regulatory impact analysis, EPA concludes that the cost effectiveness of the proposed Tier 3 program is less than $4,500 per ton of hydrocarbon and NOx removed in 2030, which is far more cost effective than most other potential NOx reduction measures being considered around the country.

Reducing emissions that cause air pollution is a zero sum game. Foregoing reductions from one source category means seeking reductions from another. In the absence of a Federal Tier 3 program, areas in need of emission reductions will have no choice but to turn to other more expensive, less cost effective measures, including controls on small businesses, to meet their statutory clean air obligations. Moreover, achieving emission reductions of the magnitude that will result from Tier 3 could be extremely difficult in
areas where there may not be sufficient sources to
control or where State and local regulation of certain
sources is politically unacceptable.

Not only is Tier 3 tremendously effective
from an air quality perspective, it is feasible today.
The proposed Tier 3 tailpipe standards are modeled on
California's LEV III program. The potential
technologies for this program are consistent with and
almost entirely the same as those on today's California
vehicles. Further, California gasoline already
achieves 10 part per million sulfur on average, and
gasoline in the European Union and Japan is subject to
the 10 ppm cap.

State and local air pollution control
agencies are relying on EPA to adopt Tier 3. The Clean
Air Act authorizes States to opt into California's LEV
III standards, but not all States can take advantage of
this opportunity. Moreover, the Clean Air Act
precludes all States, except California, from adopting
low sulfur gasoline standards, so it is imperative that
the Federal government take action no later than
December 31st, 2013, to adopt Tier 3. Otherwise, the
program may not apply to model year 2017, and an entire year will be lost.

In closing, NACAA applauds EPA for proposing the Tier 3 package and reiterates its strong support for this program, which will benefit all citizens throughout the country. Thank you.

MR. GRUNDLER: Thank you, Nancy.

Dr. Emmett?

DR. EMMETT: Hello. I'm Dr. Gary Emmett. I'm a Professor of Pediatrics at Thomas Jefferson University, and I'm the Head of Inpatient Pediatrics at the Thomas Jefferson University Hospitals. Most importantly, I'm the primary care provider for 1,400 children in Philadelphia and its near suburbs. Most of my patients are people that are chronically ill, but the most common by far of the patients that are chronically ill are people with asthma.

Out of my 1,400 patients, 200 of them have asthma. If I restrict my patient load to African-Americans, it goes from one out of seven to one out of five. If I reduce my patient load to my Medicaid patients, it's one out of four that have asthma. And
this is a huge burden on my patient population, on economics, and on the hospital's resources.

I have spent over 150 hours a year for the last 20 years as a volunteer in trying to decrease the burden of asthma on children in this city and State.

I've been an advocate on many levels. I was one of the founding members of the Pennsylvania Allies Against Asthma, now deceased because of funding, but a great organization in its time. And I'm now the Medical Director of the Pennsylvania Asthma Partnership.

Why am I spending all this time? That's about three weeks of my year that I spend doing this, and, trust me, no one pays me for it. Well, I do it because asthma is the most common cause of medical school absence nationally, and, in Philadelphia, which has an even larger burden, it reflects almost half the days lost in school to medical reasons. I do it because it's the most common reason that people from our emergency rooms are admitted to the hospital.

And as an individual, I can do things to help. I have just spent the last four or five months getting a pediatric asthma pathway for our hospitals so
that each child that comes to our emergency room gets the best possible care. And that means not only making the pathway, but, even more importantly, making sure physicians follow the pathway, which is more exciting. And then secondly, I can as an individual counsel people about the fact that they should get cigarettes out of their lives. Even if they don't smoke in the house, they take the smoke with them on their clothes, and the kids wheeze. I can counsel that they should follow the recommendations of the Expert Panel Report III of the National Institutes of Health on using preventive medicine to prevent people with asthma from getting sick in the first place. But that's my little group of 1,400 patients. Maybe I can expand it because of my administrative roles for the hospital system. But as a group, we can cause an even more important effect, and that's the effect of diesel vehicle's emissions on asthma. If you live on a street that has lots of trucks and buses going down it, your chances of having either chronic or acute asthma is almost double that of someone who lives in the same
city a few blocks away on a quiet street that doesn't have trucks on it.

So we know that truck emissions, even though the diesel vehicles are much cleaner than they ever were, we know we can do more. And we can, once we have a problem, solve it. When I started I pediatrics 34 years ago, the average lead in a child in Philadelphia was a 20 micrograms per deciliter. It is now a three.

There's no safe level of lead in children, but three is a lot better than 20.

In this same way, if we can actually stop trucks and buses from idling, if we can install systems that turn them off when they come to a red light, if we can take the city light system, stop light system, and get them to be coordinated so there are less stops and less traffic jams, and on a few streets put some traffic officers to stop traffic jams from happening, we can reduce the number of children I see in the ER. We can reduce the number of children admitted, and we can have children go to school a lot more days than they're going to school right now. And from the world of pediatrics, we would thank -- all of us would thank
you if you could do anything to help us out on that.

Thank you very much.

MR. GRUNDLER: Thank you, Dr. Emmett.

Ms. Paulsen?

MS. PAULSEN: Hello. My name is Caroline Paulsen, and I'm with the Environmental Defense Fund. On behalf of the Environmental Defense Fund and our more than 750,000 members nationwide, and the numerous members here in the Keystone State, I thank you for the opportunity to testify today in support of these vital standards to reduce soot, smog, and toxic air pollution from our Nation's fleet of passenger cars and trucks. These standards will prevent thousands of deaths each year and will provide billions of dollars in public health benefits, all for about a penny a gallon.

Americans depend heavily on our passenger vehicles. In Pennsylvania alone, there are more than nine million registered passenger cars and light trucks. Almost 90 percent of us use personal vehicles every day for travel. Fortunately, our cars are far cleaner and more efficient than the gas guzzling black smoke spewing vehicles of decades past thanks in large
part to the Environmental Protection Agency's clean air leadership.

But today's passenger cars and trucks still remain the second largest emitters of nitrogen oxides and volatile organic compounds in the U.S., the primary pollutants that form ozone smog. High ozone levels cause decreased lung function, aggravated asthma, and are associated with premature death. Pennsylvania has five cities with ozone concentrations that exceed the national health-based standards, and three of those cities are in the top 20 most polluted cities in the Nation for ozone.

Our passenger vehicles also emit more than half of all carbon monoxide pollution, and contribute significantly to particulate matter emissions and air toxics. Particulate pollution or soot has many harmful health impacts, including premature death. Eight major cities in Pennsylvania, home to millions of people, do not meet National Ambient Air Quality Standards for particulate matter. And Pittsburgh, Harrisburg, and Philadelphia rank among the top 20 most polluted cities for particulates.
The vital importance of cleaner air for our families, our communities, and our Nation is why I'm here today joined by so many others to support the Tier 3 proposal, and it's why EPA should finalize this important rule without delay. The proposed standards would reduce sulfur levels in gasoline, allowing catalysts in new and existing vehicles to perform better. As a result of these cleaner fuel standards, our Nation and the communities here in Pennsylvania would see immediate reductions in smog forming nitrogen oxide emissions. And EPA estimates those reductions could be significant enough to bring ozone concentrations in communities like Bucks County from levels above the health based standards today to levels below the health standard in 2017, the first year of the Tier 3 program.

Additionally, the proposed tailpipe standards, which will require new engines to burn cleaner, are projected to reduce smog forming pollutants by 80 percent, and particulate pollution by 70 percent from today's fleet of vehicles. According to EPA analysis, the particulate reductions from our
passenger vehicles will result in significant declines in air pollution concentrations in cities across this State, including Pittsburgh.

The human health benefits of this proposal are profound. That is why it's supported by the American Lung Association, the Nation's air quality control officials, and millions of Americans. The emissions reductions will result in up to 2,400 fewer lives lost, and it will prevent 3,200 hospital visits and 22,000 asthma attacks, not in total, but every year.

EPA estimates these health care savings could total up to $23 billion annually. And the cost to achieve these vital health protections is only a penny a gallon for the cleaner gasoline. This estimate is based on several major studies, including an EPA analysis, a technical analysis by MathPro, and an economic analysis by Navigant Economics.

The Tier 3 program provides a clear vision for healthier air today and a lasting clean air future for our children. The systems approach of establishing protective emission standards for cleaner cars and
fuels together will drive investment and development in emissions control technology, allow manufacturers to efficiently align technology upgrades, and provide long-term regulatory certainty for the U.S. auto industry, all while reducing the health burden on American families.

In conclusion, the Environmental Defense Fund is proud to join the auto manufacturers, the auto workers, the emissions control technology industry, the health experts, the environmental organizations, the State and local air pollution control agencies, the consumer groups, and the public who all agree that cleaner passenger cars and trucks are an important step forward for a healthier and stronger America.

Thank you.

MR. GRUNDLER: Thank you.

Ms. Higgins, you're up.

MS. HIGGINS: Good afternoon. Thank you for the opportunity to testify today. My name is Meghan Higgins, and I'm the Senior Washington Representative for the Clean Vehicles Program at the Union of Concerned Scientists. UCS is the Nation's leading
science-based non-profit putting rigorous independent science to work to solve our planet's most pressing problems. On behalf of UCS' more than 400,000 supporters and network of more than 23,000 scientists, engineers, and public health professionals, UCS strongly supports the cleaner gasoline and tailpipe standards proposed by the Environmental Protection Agency, and urges the EPA to move as quickly as possible to finalize the standards.

Why should EPA move quickly to finalize the so-called Tier 3 standards? Because failure to do so, to finalize the rule in 2013, will mean that the standards will not take effect in 2017, and we will lose an entire model year worth of benefits. And those benefits, as you've heard from many people before me, include reducing air pollution, improving public health, and creating thousands of new jobs in an ailing economy, both at the refineries and at high tech companies developing and deploying state-of-the-art emission control equipment for vehicles.

One of the unique benefits of the Tier 3 program is that by lowering sulfur and the gasoline
that goes into vehicles already on the road, the
program will have immediate positive impact. Reducing
the sulfur content of the gasoline helps the catalytic
converters work more efficiently, reducing emissions
from the legacy fleet even while we wait for the
vehicle fleet to turn over. By setting the standards
for the fuel and the vehicle together -- what's called
the systems-based approach -- the Tier 3 standards are
able to achieve the greatest emission reductions at the
lowest cost to society.

We witnessed the success of this approach to
cleaning up our vehicle fleet with the Tier 2
standards, which were phased in through 2007. These
standards successfully reduced tailpipe emissions and
the sulfur content of gasoline, providing cleaner air
for all Americans. But we can and we must do more to
protect the most vulnerable among us from unhealthy
air. And that is why is moving ahead with the next
phase of gasoline and tailpipe standards is critical.

According to the proposal released by EPA on
March 29th, Tier 3 will prevent 2,400 premature deaths,
avoid 3,200 hospital admissions, and eliminate 22,000
asthma attacks each year by 2030. And all of this can be accomplished, but with technology we are already have.

Tier 3 is consistent with the global trend to reduce sulfur and gasoline. Refiners are already producing ultra-low sulfur fuel in California and much of the developed world, demonstrating that the technology to meet these standards has already been deployed. In 2012, the Hart Energy International Fuel Quality Center ranked the top 100 countries based on sulfur limits and gasoline. The United States at the current level of 30 parts per million is ranked 47th with higher sulfur levels than Japan, South Korea, Turkey, Taiwan, Thailand, Chile, and all of Europe.

Meeting the 10 part per million standard is estimated to cost the refiners less than a penny a gallon, and let's make sure that's perfectly clear. This is the cost to the refiners. A study by Navigant Economics confirms EPA's estimates, finding that the cost of complying with Tier 3 for U.S. refiners is "in the vicinity of one cent per gallon." Additionally, Navigant states that, "This expression of the
compliance cost on a cents per gallon basis does not imply that these compliance costs will be passed on fully to the consumer."

The oil industry is one of the world's most profitable industries. The five largest companies took home a combined $118 billion in profits in 2012 alone. It's time for the oil industry to stop blocking progress, and given their record profits, less than a penny a gallon is a small price to pay to protect the air that we all breathe.

Despite its fear mongering, the oil industry stands alone in its opposition to the Tier 3 program. It would have you believe that the standards are unnecessarily burdensome, that the challenge is too great, and that the costs are too high. I work with scientists and engineers every day, and I can assure that this is not a question of whether or not we have the technical capacity to meet these standards. Scientists and engineers in the United States and around the world are already achieving goals of these standards, and are doing so in a cost-effective way. And that is why the standards are supported by health
groups, labor organizations, environmental and faith communities, the auto industries, State and local officials, among others.

Please don't let the oil industry's misleading analysis stand in the way of improving public health for everyone. On behalf of the UCS and all of our members and supporters, I urge you to finalize this rule before the end of the year, and thank you for the important work that you all do to protect human health, clean our air, and create a more sustainable future for us all.

MR. GRUNDLER: Thank you.

Mr. German, you have the last word.

MR. GERMAN: Standing between people and lunch.

My name is John German. I'm a Senior Fellow at the International Council on Clean Transportation. ICCT has broad expertise in all transportation areas, and our primary mission is to help regulatory agencies worldwide reduce air quality pollutants and greenhouse gas emissions.

The ICCT strongly supports the proposed Tier
3 standards. The standards will maintain U.S. leadership in light duty vehicle emission controls and allow the U.S. to catch up to Europe on gasoline fuel quality. Not only will the requirements improve public health in the U.S., they will help accelerate introduction of inexpensive emission controls in other countries.

The two keys to low vehicle emissions are precise air fuel control and rapid catalyst light off. Since the Tier 2 standards were adopted, there have been major improvements in emission control technology. Catalysts have improved dramatically. Fuel injection is more precise. Feedback of actual air fuel ratio is faster. Software algorithms to predict air fuel ratio have improved, and drive by wire system allow air and fuel to be changed simultaneously. This has raised catalyst conversion efficiency to unprecedented levels.

The other major improvement has been development of initial idle retard for cold start, which can light up the catalyst before the initial 20-second idle period is done. Combining these technologies allow light duty vehicles to easily meet
1 the proposed Tier 3 standards, even without consider
2 other improvements.
3 The ICCT fully supports extending chassis
4 based emission requirements to all complete vehicles up
5 to 14,000 gross vehicle weight. The trend since the
6 first standards were adopted in the 1970s has been to
7 increase the GBW of many light trucks above the
8 threshold for light duty standards. This has
9 especially been a problem for diesel engines and pickup
10 trucks, which are only sold above the 8,500 GBW light
11 duty emission threshold. Extending the threshold to
12 14,000 will ensure emission standards are applied
13 appropriately to all complete vehicles. Similarly, the
14 ICCT fully supports extending the supplemental FTP
15 requirements to complete vehicles between 8,500 and
16 14,000, which were previously exempt.
17 It appears that EPA is using outdated and
18 overstated cost estimates. For example, the regulatory
19 impact analysis shows that the estimated increase in
20 precious metal cost compared to Tier 2 is $61 for a
21 four-cylinder engine. For comparison, an ICCT study
22 published last year found that precious metal loadings
have been decreasing over time, and a Tier 3 four-
cylinder vehicle only has $71 of precious metals in
total now. EPA needs to recalibrate its cost estimates
for the declining precious metal loadings.

The ICCT commends the EPA for fully --
finally proposing to reduce gasoline sulfur to
reasonable levels. Japan and South Korea have required
10 ppm sulfur and gasoline since 2007 and Europe since
2009. Even Chile has required 15 ppm sulfur and
gasoline since 2010. Given the leadership shown by the
U.S. in most environmental areas, a lack of sulfur
control and gasoline has been an inexplicable lapse.

Further, the cost of reducing sulfur from 30
ppm to 10 ppm is very modest. A recent study by
MathPro for the ICCT found that the cost would be .08
to 1.4 cents per gallon. This cost includes revamping
the FCC naphtha hydro treaters, historical rates of
return on investment, supplying the additional hydrogen
needed, and replacing losses in both gasoline volume
and octane. In fact, the cost estimates are likely
overstated, as MathPro assumed that all existing hydro
treating capacity would require revamping, even though
many hydro treaters installed to meet the Tier 3 sulfur requirements are already capable of meeting the 10 ppm standard.

I also want to emphasize that the impact of sulfur on older vehicles in grams per mile are fully as large as on Tier 3 vehicles, if not larger. And as most of the sulfur impacts are reversible, reducing the sulfur will result in immediate and very large end use emission reductions.

ICCT does have concerns in two areas. First, while the proposed supplemental FTP standards are a major improvement over the SFTP standards with Tier 2, they are still not stringent enough. The Tier 1 SFTP standards were set at the same numeric level as the Tier 1 FTP standards. While the proposed SFTP NMOG plus NOx standards are 67 percent higher than the proposed FTP standards. The problem is far worse for particulate matter. As the proposed SFTP particulate standard is 3.3 times larger for light vehicles and 6.7 times larger for heavy duties -- heavier vehicles than the FTP particulate standard.

The ICCT is also concerned about the revision
to use E-15 for test fuel. This is acceptable for certification vehicles, but it appears the EPA is also proposing to use E-15 for fuel economy testing. Fifteen percent ethanol provides significant evaporative cooling in the cylinder, which would allow manufacturers to make modifications to improve fuel economy in the test cycles, but which would not necessarily be achieved end use. And I'll skip my closing. Thank you.

MR. GRUNDLER: Thank you very much.

Questions from the panel?

[No response.]

MR. GRUNDLER: Okay. Thank you very much. We're running about 15 minutes early, so we will start panel four at 1:05. Break for lunch now. Thank you very much.

[Whereupon, at 12:20, the meeting was recessed for lunch, to reconvene at 1:10 p.m.]

MR. GRUNDLER: We are ready to proceed with panel four, and I'd like to start with Molly Rauch from the Mom's Clean Air Force. Did I pronounce your name correctly?
MS. RAUCH: Yes, thank you. Good afternoon. I'm Molly Rauch with Mom's Clean Air Force, and I really appreciate the opportunity to speak with you today. On behalf of Mom's Clean Air Force and our more than 130,000 members nationwide, I thank you for the opportunity to speak today on this very important proposal to address vehicle emissions.

I'm speaking to you today as a mom. I have three children ages five, seven, and nine. My youngest turned five just yesterday, and as I watched him blow out his candles last night, I was thinking about this hearing today and how my son's ability to take a big, deep breath, and make a wish, and blow out his candles was a precious gift, one that I can't take for granted, and one that we all should work hard to protect.

One in 10 American children suffer from asthma. Meanwhile, more than 40 percent of Americans live in areas where air pollution levels exceed at least one Federal health standard, and cars a major part of that problem. Cars emit soot as well as the ingredients that form smog. Soot and smog trigger asthma attacks, making asthma worse among those who
already have it and, research suggests, also causing asthma to develop in otherwise healthy children.

Asthma attacks are dangerous health events, and as I know from my friends who have children with the disease, asthma attacks also burden families with missed school and work day. They send families to the doctor's office and to the pharmacy to buy medicine. They flood the health care system with emergency room visits, and they're terrifying. My children do not have asthma thankfully, but I myself carry an inhaler for my own occasional bouts of wheezing. So I know personally how frightening the symptoms can be.

EPA's proposed cleaner gasoline and tailpipe standards will cut harmful emissions of smog-forming nitrogen oxides and volatile organic compounds by 80 percent from today's levels. They'll cut dangerous particle pollution or soot by 70 percent, and dangerous air toxics pollutions, such as benzine, by nearly 40 percent. And they'll do this by reducing the sulfur content of gasoline and tightening tailpipe emissions.

The air pollutants that are addressed in the proposed standards are correlated in study after study
in a robust body of research with not only asthma, but also bronchitis, pneumonia, heart disease, stroke, increased hospital admissions, stunted lung development heart attacks, and premature death. Children, the elderly, and people who are already sick are especially vulnerable to the health effects of these air pollutants, but they're not the only ones affected. Every person who breathes may be affected by these health impacts, all of which is to say that while moms have a special interest in this issue, all Americans have a stake in the proposed standards today.

That's why Mom's Clean Air Force strongly supports the proposed standards, which will prevent up to 22,000 asthma attacks every year, according to EPA's analysis of the health benefits. The standards will also prevent up to 2,400 premature deaths and 3,200 hospital admissions nationwide every year. They will reap up to $23 billion in annual health care savings by 2030, and they will cost about a penny per gallon. They'll protect our kids, save us money, and they don't cost us every much to implement. They also have broad support, as you've heard today, from auto makers,
health professionals, the emissions control industry, national recreation groups, and others.

By slashing tailpipe emissions, the standards very importantly will also help those children who live closest to major roads and traffic congestion. Those children are disproportionately African-American, Hispanic, and other minorities. They also tend to be poorer than children who live farther away from highways and traffic. Not unexpectedly, such children are more likely to have asthma than their white peers.

So the standards will improve the health of those children who need it most, and will help mitigate the racial, ethnic, and economic disparities of pollution exposures and disease distribution. It just makes good sense to clean up asthma triggers at their source.

I live with my family in Washington, D.C., a city with notoriously horrible traffic that also often has unhealthy levels of ozone. In fact, D.C. has received a failing grade for ozone levels from the American Lung Association "State of the Air Report."

The proposed cleaner gasoline and tailpipe standards
will help reduce the number of days that my children have to breathe unhealthy levels of smog.

Please finalize these health protective standards quickly so that my children and yours can blow out their birthday candles year after year. Thank you.

MR. GRUNDLER: Thank you very much.

Jim Kliesch?

MR. KLIESCH: My name is Jim Kliesch, Honda's Environmental Regulatory Affairs Manager, and I am here today to voice Honda's strong support for key aspects of EPA's proposed Tier 3 motor vehicle emission and fuel standards.

Honda is a company long committed to the environment, social responsibility, and sustainability, and we appreciate the Agency's efforts to reduce vehicle emissions and the adverse health impacts associated with them.

Honda's engineers and certification specialists are presently assessing the rule in detail, and we will speak to it in its entirety in written comments submitted within the comment period. Today,
however, I would like to spend my time to raise two
issues that Honda considers of critical importance:
gasoline sulfur and harmonization between Federal and
State regulatory requirements.

As you know, through the use of sophisticated
emissions control technology, the automotive industry
has been able to achieve extraordinarily low exhaust
levels throughout a vehicle's life. The anticipated
Tier 3 standards and the LEV Ill standards of
California will push those emissions to near zero
levels. But doing so requires the use of vehicle
technology and fuels that complement one another.
Sulfur in gasoline has long been known to adversely
affect catalyst performance and, as a result, achieving
the Tier 3 and LEV Ill stringencies is highly dependent
on the vehicles' use of low-sulfur fuel. California
has recognized this in its LEV Ill standards, requiring
an average of 15 parts per million and a cap of 20
parts per million. It is critical that EPA set a
national gasoline sulfur average and cap levels
equivalent to those specified in the California
regulations.
Lowering sulfur will enable new vehicles to better meet the cleaner proposed emissions standards for the duration or their useful life, improving air quality as those vehicles work their way into the vehicle population. It's also worth mentioning that lowering the sulfur content of gasoline has another, less gradual benefit. As the Agency notes in the proposed rule, cleaner fuel "facilitates immediate emissions reduction from all vehicles on the road at the time the sulfur controls are implemented." Failing to bring cleaner fuel to market in a timely manner would miss a fundamental opportunity presented by this systemic approach to regulating both vehicles and fuels.

It should also be noted that the Tier 3 standards have an important relationship with other recently finalized vehicle regulations, the model year 2017-2025 fuel economy and vehicle greenhouse gas standards. As a result of the latter set of standards, numerous efforts are now underway to improve the thermal efficiency of advanced internal combustion engines. These efforts are successfully reducing waste
heat, delivering more energy to the wheels. Yet because catalysts use wasted engine heat to reach operating temperatures, cooler engines mean catalyst operating temperatures. These catalysts are more likely to be poisoned by sulfur in the fuel. Countermeasures to ensure after treatment operability in a sulfur-rich environment would require burning burning unnecessary excess fuel, eroding mpg and putting additional greenhouse gas emissions into the atmosphere, exactly the opposite of the intended fuel economy and greenhouse gas regulations.

Setting fuel sulfur standards comparable to those currently set in California would ensure that the Tier 3, LEV III, fuel economy, and vehicle greenhouse gas policies are working not at odds with one another, but rather in a complementary manner, opening doors to future designs that are both cleaner and more fuel efficient.

The second matter I'd like to raise today is the issue of harmonization between Federal and State standards. Much has been said during the past few years about the importance of regulatory harmonization.
With near unanimity, the auto industry supported the 2012 to 2016 and 2017 to 2025 vehicle greenhouse gas standards, in large part because it represented a national, unified solution to a complex set of competing Federal and State standards. Honda produces a wide range of vehicles for an equally wide demographic of buyers that requires multidimensional considerations about what to produce, how many to produce, the cost to produce our products, and where those models will most likely be purchased. Having to deal with competing Federal and State regulatory requirements only complicates those decisions further.

As the EPA considers setting Tier 3 vehicle emissions and fuel requirements, we urge the Agency to harmonize to the greatest extent possible with California's LEV III regulations for certification fuel characteristics and market fuel characteristics. Doing so would enable one fleet of vehicles to meet all U.S. regulations, substantially easing both the regulatory burden and cost of complying, letting us provide our customers greater affordability, and allowing us to design our
vehicles to maintain consistent performance and emissions durability across the Nation.

One of the more important regulatory achievements of this Administration has been its actions to harmonize the Federal fuel economy and vehicle greenhouse gas regulations with those of California. A harmonized set of tailpipe emissions and fuel regulations would complement a key objective laid out by President Obama in the May 21st, 2010 White House memorandum. It states: "The national program should seek to produce joint Federal standards that are harmonized with applicable State standards, with the goal of ensuring that automobile manufacturers will be able to build a single, light duty national fleet." We couldn't agree more.

MR. GRUNDLER: I need you to wrap it up, Jim.

MR. KLIESCH: Honda urges the Agency to finalize a set of standards that offers the greatest degree of harmonization with State standards, as well as to ensure that the fuel operated in these vehicles will accommodate the advanced emissions control systems needed to meet the proposed standards.
Once again, we thank the Agency for its work in developing these proposed standards. We look forward to their prompt finalization by the end of 2013, to maximize regulatory certainty.

Thank you again for the opportunity to testify today. I appreciate your attention.

MR. GRUNDLER: Thank you, Jim.

Mr. Hirshfeld, welcome.

MR. HIRSHFELD: Thank you. Good afternoon.

My name is Dave Hirshfeld. I'm the head of MathPro, Incorporated, a consulting firm specializing in the technical and economic analysis of refining operations. In the summer of 2011, the International Council on Clean Transportation commissioned us to estimate the U.S. refining sector's investment requirements and average cost for reducing average sulfur content of the U.S. gasoline pool from 30 ppm, the current standard, to 10 ppm, the proposed Tier 3 standard, and also for reducing the summer re-vapor pressure standard of U.S. conventional gasoline. Our report from that study was submitted to EPA in October of 2011.

My testimony today deals exclusively with
sulfur control.

Our analysis indicated that the refinery investment for meeting the 10 ppm gasoline sulfur standard would be in the range of $3 to $4 billion per year, and that the corresponding total annual refining cost would be in the range of $.9 to $1.5 billion a year. And that corresponds to an average cost of eight-tenths of a percent to 1.4 cent per gallon of gasoline.

This range of estimated average cost reflects different assumptions regarding two economic factors: the rate of return on refinery investment and the capital cost of revamping FCC naphtha hydro treaters, a particular type of unit in U.S. refineries to enable those units to carry out the more severe desulfurization needed to meet the 10 ppm standard.

The higher estimate of 1.4 cents a gallon reflects a 10 percent after tax return on investment and a capital cost for revamping of about 50 percent, about half, of the capital costs for a grass roots unit of the same kind and size. The lower estimate of eight-tenths of a cent a gallon reflects a seven
percent pre-tax return on investment, and about a 30 percent factor applied to the capital cost of revamping a grass roots unit.

In turn, we estimated that the capital cost of a grass roots FCC naphtha hydro treater would be about $1,800 per barrel per day, which is a standard unit of capital cost measurement and refining, and that includes both on-site and offsite investments. These investment estimates and refining cost estimates cover de-sulfurizing the refinery streams needed to meet the 10 ppm average, supplying the additional hydrogen needed for de-sulfurization, replacing the small losses in both gasoline volume and gasoline octane that accompany tight de-sulfurization, and expanding refineries' sulfur recovery in offsites is needed to support additional sulfur control.

We conducted our analysis using four regional refinery LP models representing projected aggregated refining capacity in pads one through four, with all major regulatory programs affecting fuel quality in place. We have used similar refinery LP models in many previous analyses of the refining costs of new fuel
standards, including Tier 3 gasoline sulfur, ULSD, Federal and California RFG programs, and Arizona CBG. In this study, our models represented the U.S. refining sector maintaining regional and total U.S. gasoline production at the volumes projected by EIA for 2015, meaning the refineries would adjust operations to replace the small losses in volume that would accompany tighter sulfur control. Our projected product volumes, crude oil, and natural gas prices for 2015 were developed from EIA's AEO 2011.

Meeting the 30 ppm standard, we posited that the method of choice for refiners would be to revamp their existing units rather than build grass units of another type. Refineries that now meet the 30 ppm standard with these units would add facilities, go through a revamp, and through that achieve the 10 ppm standard.

We understand that many of these units that are already in place already have the capability to meet a 10 ppm standard, but in our analysis, we assume that all units in the U.S. refining sector would require revamping.
The U.S. refining industry has already installed about 75 of these advanced units in order to comply with Tier 2, and many similar units have been installed in other countries as well. Hence, the range of capital costs and operating costs for these units is now reasonably well established.

I see I've run out of time, so I'll end it there. Thank you.

MR. GRUNDLER: Thank you, Mr. Hirshfeld. We'll probably have some follow-up questions for you, so you can elaborate then.

Ms. Ways, Maryland. Welcome.

MS. WAYS: Good afternoon. My name is Marcia Ways, and I'm the Program Manager for the Mobile Sources Control Program in the Air and Radiation Management Administration at the Maryland Department of the Environment. I appreciate this opportunity to testify on the EPA's proposed Tier 3 motor vehicle and fuel standards.

I'm here today to commend EPA on issuing the proposed Tier 3 standards and to offer Maryland's full support of this important air quality program. We know
of no other strategy that can provide the substantial, immediate, and cost-effective air quality benefits as these Tier 3 standards.

The Tier 3 standards are critical to Maryland in several ways. They are the single most important set of measures that EPA can implement to reduce transportation-related emissions, which are the number one contributor to Maryland's problems with ground level ozone. Unfortunately, Maryland records the worst ozone levels anywhere east of the Mississippi. The Tier 3 standards will dramatically reduce the emissions from local vehicles, but, more importantly, they will also reduce emissions from vehicles traveling through Maryland, as well as those operating in States upwind of us. About 70 percent of Maryland's ground level ozone problems originates in upstate winds -- I'm sorry, upwind States. Mobile sources are the most significant contributor to Maryland's problem with ozone transport.

The low sulfur fuel component of the Tier 3 standards alone will provide significant local reductions in NOx emissions from the existing fleet.
Our research shows that reducing NOx emissions is the key to further reducing ground level ozone. The NOx reductions from the Tier 3 program are absolutely critical to Maryland's ability to attain the ozone standard, as well as our efforts to restore the Chesapeake Bay.

The automobile industry has achieved amazing technological advances in reducing automobile emissions and is now doing the same in improving fuel efficiency. The petroleum industry has made similar progress in reducing the emissions from fuels that are used to power our vehicles. In spite of tremendous progress made at the State, regional, and Federal levels over the past 40 years, poor air quality continues to be one of our State's most pervasive environmental problems.

The Tier 3 standards will benefit Maryland by reducing emissions of the pollutants that cause our continuing ozone non-attainment problem. More than 90 percent of Maryland's citizens live in ozone non-attainment areas, and reducing NOx emissions is crucial to improving this air quality.

In 2006, Maryland adopted one of the
country's toughest power plant laws called the Maryland Healthy Air Act. Because of this law, mobile sources are now the leading contributor to NOx emissions in Maryland, emitting more than twice the emissions of power plants. Emissions from cars and trucks also contribute to fine particle pollution and are key sources of hazardous air pollutants. These pollutants disproportionately affect people living and working in our urban communities where vehicle congestion and population density are highest.

NOx and other vehicle-related pollutants also contribute to the number of -- I'm sorry -- a number of environmental problems, such as acid rain, stream eutrophication, and regional haze that affect cherished and economically valuable natural resources, such as the Chesapeake Bay. The Chesapeake Bay is a national treasure and vital to the economic health and cultural identity of Maryland.

Reducing mobile source NOx emissions is an important component of our Chesapeake Bay restoration effort. Atmospheric deposition of nitrogen is responsible for approximately one-third of the Bay's
nutrient pollution, and 50 percent of that nitrogen is attributable to mobile source emissions. The Tier 3 standards will dramatically reduce nitrogen deposition to the Bay.

Maryland has already implemented some of the most stringent emission control strategies in efforts to attain the ozone standard. The Maryland Healthy Air Act, designed to reduce power plant and NOx emissions by 75 percent and SOCs emissions by 85 percent, is now in place and has cut emissions from that sector dramatically.

Maryland has also regulated emissions from consumer goods, such as household products, perfumes and dyes, household and industrial paints, asphalt paving operations, and cement plants. On the mobile source side, Maryland has adopted the California Low Emissions Vehicle program. We have required the use of Federal reformulated gasoline in all of our non-attainment areas, and we operate a highly effective vehicle emissions inspection and maintenance program.

Given the stringency of Maryland's existing emissions controls, the Federal constraints on State
regulation of motor vehicles and fuels, and the fact that Maryland is significantly impacted by pollution transport from sources outside the region, these national emission control measures for cars and trucks are critical to achieving further improvements in our air quality.

The world is moving towards cleaner cars and lower sulfur gasoline. We are confident that the refiners and the automobile manufacturers will continue to find new and innovative ways to meet the new requirements. As a State agency facing the challenges of attaining the health-based standards for ozone and particulate matter, as well as undertaking measures to address widespread toxic air pollution, a stringent and cost effective program to tackle emissions from cars and trucks, which are key contributors to all of these, is critical.

Maryland encourages EPA to take full advantage of this opportunity to establish a meaningful and effective Tier 3 program to help States and localities meet our clean air obligations.

Thank you.
MR. GRUNDLER: Thank you, Marcia.

Next is Ms. Wijeyewickrema. Welcome.

MS. WIJEYEWICKREMA: Good afternoon. I am Kesaaraa Wijeyewickrema, Manager of the Clean Vehicles and Fuels Program at the American Lung Association.

For over 100 years, the American Lung Association has been working to protect healthy lungs and healthy air. We believe that every American has the right to breathe clean and healthy air, and although we've made progress in the U.S., largely due to the Clean Air Act, millions of Americans remain at risk from air pollution.

One of the most cost effective tools we have available to clean up air pollution is the proposed cleaner gasoline and vehicle standards. For about a penny per gallon of gas, we can save thousands of lives each year. That's why the American Lung Association and our partners, including the American Heart Association, American Public Health Association, the American Thoracic Society, Asthma and Allergy Foundation of America, Health Care Without Harm, National Association of County and City Health
Officials, and Trust for America's Health, sent the President a letter supporting cleaner gasoline and vehicle standards in January of this year. And that is why I’m here today.

We applaud the EPA's efforts to cut life-threatening tailpipe pollution, and we urge you not to delay in finalizing these standards, because millions of Americans remain at risk. Tailpipe pollution can be most toxic within 300 to 500 meters of a roadway and can cause harm to lung and heart health. A 2010 survey of existing research by the Health Effects Institute, also found evidence suggestive of a causal link between traffic pollution and the onset of childhood asthma, non-asthma respiratory symptoms, impaired lung function, total and cardiovascular mortality, and cardiovascular morbidity.

While our most vulnerable populations to tailpipe pollution are children, older adults, those with existing conditions such as asthma, reduced lung function, chronic obstructive pulmonary disease, heart disease and diabetes, tailpipe pollution endangers the public health at large. It's not just those of us who
live or go to school or work near busy roadways that are affected by traffic pollution. Particulate matter, deadly pollution that is formed in the atmosphere from tailpipe emissions, can stay suspended in the atmosphere for days or weeks because of their small size. These small particles can be transported into nearby neighborhoods or even hundreds of miles away, affecting people in neighboring cities and states.

Cleaner gasoline and vehicle standards will reduce particle, or soot, pollution as well as ozone or smog pollution. The health benefits of the proposed cleaner gasoline and vehicle standards are great, and as you've heard today, every stakeholder except one supports these lifesaving standards. In January, the American Lung Association released a bipartisan poll that found an overwhelming majority -- 62 percent to 32 percent -- of Americans support cleaner gasoline and vehicle standards.

The American Lung Association urges you to finalize these standards immediately so that all Americans can benefit from healthier air. Thank you for the opportunity to speak in support of cleaner
MR. GRUNDLER: Thank you very much.

Next, Mark Zakutansky?

MR. ZAKUTANSKY: Thank you. It's a pleasure to be here today on behalf of the Appalachian Mountain Club. The Appalachian Mountain Club strongly supports the Tier 3 rule as proposed and urges that the rule be finalized before the end of this year.

Our organization supports healthy, clean outdoor air for tens of millions to our parks and trails throughout the Northeast, such as the iconic Northern Forest in New England, the Appalachian Trail, and scenic places in the Mid-Atlantic region, like the Delaware Water Gap National Recreation Area and the Delaware Bayshore.

The Appalachian Mountain Club works to connect people to the outdoors for healthy recreation in the mountains and rivers, but also close to home, such as in local parks or along bike paths.

Unfortunately, many of our 100,000 members and supporters live and recreate in areas that are experiencing air pollution that poses serious health
impacts.

The impacts of poor air quality on individuals who enjoy outdoor recreation are very real. For example, high levels of ozone are particularly troublesome for children in the outdoors, especially at higher elevations. The Appalachian Mountain Club's own monitoring and research, in conjunction with Harvard School of Public Health and Brigham and Women's Hospital, has shown that ozone can impair lung function in healthy people hiking to reach the summit of Mount Washington in New Hampshire. Furthermore, while ozone levels have improved regionally and in rural mountains, levels on Mount Washington remain high, to the concern of the AMC and our members.

Fine particulates and toxins also pose significant health concerns for those who enjoy exercising in the outdoors because they experience a heightened exposure while breathing more deeply. While our Nation works to overcome challenges in connecting today's youth and families to the outdoors, we must ensure healthy, clean air at our parks and trails in urban and rural areas.
Building on EPA's Tier 2 regulation finalized in 2000, Tier 3 uses the same system approach of addressing both fuel and emissions simultaneously. We strongly agree with the EPA that this is a cost effective solution, and that addressing fuel quality is necessary for reaching the much needed emission reductions that would otherwise not be technologically achievable. The adjustment in sulfur fuel content is needed as sulfur fouls the efficiency of vehicle catalytic converters, a key system component that reduces smog forming emissions and toxic air pollution.

Many States, especially here in the Mid-Atlantic, may have difficulties attaining or maintaining the National Ambient Air Quality Standards for ozone in the coming years, without Tier 3.

Oh behalf of our members and supporters, and the tens of millions of individuals and families who enjoy outdoor recreation in the Northeast and around our country, we urge the EPA to expedite this very important and common sense proposal to the final rule.

Thank you.

MR. GRUNDLER: Thank you.
Reverend Brown, welcome.

REVEREND BROWN: Good afternoon. I'm Reverend Jesse Brown. I'm a pastor here, a Lutheran pastor, in Southeastern Pennsylvania Center, serving congregations in both Philadelphia and in Camden, New Jersey. And to some degree, I am glad to be here that this issue is being aired, and at the same time I'm dismayed because my question would be, why aren't we there yet?

The evidence appears to be fairly clear in a number of ways that without this regulation, it will continue to contribute to air pollution, health effects, and a number of other things, you know, already there. You would think common sense would work, but obviously common sense doesn't work, so we have to come into a hearing to plead the case before the public that we ought to be taking the steps. So I still have to ask, why aren't we there?

We know that businesses will be hurt by unhealthy people. It affects particularly productivity, as well as parents and others who have to be out to take care of children who may end up with
asthma or other things that this proposed rule helps to mitigate to some degree. Again, you still have to ask, why aren't we there? It seems rather easy -- it seems to be a common sense thing that if we pass this regulation, the benefits to America and our society is great.

But let me add one other thing. I think part of the reason why I am able to be here is because I do believe there is a moral imperative, and that imperative is not only incumbent upon us here. And you may look at that moral imperative in all kinds of ways. Too often when we come to these hearings, people start to dismiss the moral imperative as not being important or somehow it's somewhere else out there, when, in fact, the moral imperative ought to be that which is guiding our decision making and moving us forward. That's where we start with that imperative.

Now, I might start with loving thy neighbor as thyself, but I think it's pretty consistent with the imperative that you folks have in protecting the air, water, and land. To me, that's loving my neighbor as well as myself.
This moral imperative should be the guiding principle for our actions and your actions in moving this issue right along the line. And I believe that in the end, we of course will get this. I think we'll get this thing passed. But we ought to make certain that - - you ought to make certain that as you continue to do your job, that you are responsible for all Americans, rich and poor, in the cities, in the suburbs, those upstream, those downstream. However you look at it, you're responsible for all of us.

This measure meets that requirement. It takes care of all of us. It helps make our lives easier. It removes to some degree the misery index that we sometimes find with people who are suffering from illnesses that this regulation hopes to mitigate.

So I'm at least happy to be here to that degree to be able to air my particular thought on this process. And I want to yield back the last measure of my time only to those who have good sense and common sense. Thank you.

MR. GRUNDLER: Well, Mr. Tsuo, the challenge is yours.
[Laughter.]

DR. TSUO: Well, I hope do have good sense.

Thank you, Reverend Brown.

My name is Dr. Walter Tsuo. I chair the Board of Philadelphia Physicians for Social Responsibility. I speak today in support of the proposed Tier 3 rules which will reduce the allowable amount of sulfur and gasoline and set new standards for vehicle emissions.

Now 13 years after the Tier 2 final rules on sulfur were published, it's time to update these regulations. We know that we have the technical ability to do this because we already require these standards in California, Japan, South Korea, and most of Western Europe. Because you will hear from many others on the Tier 3 rules, I will limit my few minutes to the harmful effects of sulfur.

One of the most important higher sulfur effects is actually mechanical, and it's an adverse effect on the catalytic converter system. Laws of the effectiveness of the catalytic converters allow a variety of noxious and harmful pollutants in the
environment, notably the oxides of nitrogen, carbon monoxide, sulfur dioxide, and particulate matter 2.5. All are known contributors to smog and air pollution.

Sulfur upon combustion in a car engine is converted into the oxides of sulfur, which are known respiratory irritants. There’s a suffocating odor similar to rotten eggs. The most common and significant oxide is sulfur dioxide. About 10 to 20 percent of young adults are sensitive to even small amounts of exposure to sulfur dioxide.

It can cause severe irritation of the nose and throat, and even short-term exposures of sulfur dioxide can trigger bronchial constriction and exacerbate asthma in susceptible patients. The sulfur dioxide can attach to small particles and are then inhaled deep into the alveoli of lung tissue, exacerbating those with respiratory disease.

Studies have shown that these exacerbations can worsen emphysema, bronchitis, and pre-existent heart disease, leading to hospitalizations and even death. As such, sulfur dioxide is classified as very toxic.
Sulfur dioxide combined with water can form sulfurous acid, and continued exposure to sulfurous acid can lead to permanent destruction of lung tissue and skin and eye irritation. Its presence in high concentration contributes to acid rain, although it's largely formed by dissolved CO2, which is clearly harmful to our water supply and oceans.

So in summary, sulfur is nasty. It has many significant adverse health effects. Reduction of some sulfur in fuel will lead to better emission control through catalytic converters, reduce respiratory and cardiac events, and help at reducing acid rain on our planet.

Thank you for this opportunity to express my opinion.

MR. GRUNDLER: Thank you very much, panel.

Any questions?

MR. MACHIELE: Sure. I'm the fuels guy. I have to ask a fuel question. So, David Hirshfeld, did your modeling account for the ABT flexibility that we had in the proposal?

MR. HIRSHFELD: No, it did not because we
were working with regional aggregate models. They were not representing individual refineries, but, you know, regional sectors. So we really had no way of considering ABT within that modeling framework.

MR. MACHIELE: So a follow-up question then. If a refinery faced higher marginal costs than others for revamps like you were assuming, what options might they pursue versus what you assumed?

MR. HIRSCHFELD: High cost refineries you mean?

MR. MACHIELE: Right.

MR. HIRSCHFELD: Well, obviously one would be to try to capitalize on ABT, particularly if we had a refinery like that that was part of a multi-refiner company and refining circuit. Or there would probably be some tradeoffs available between increasing capital investment to go beyond revamping the FCC in exchange for resulting lower per gallon operating costs.

MR. MACHIELE: Okay, thanks.

MS. SARGEANT: I have a question for Marcia Ways from Maryland. You spoke to the various needs for emission reductions that your State faces, and I
wondered if you could speak some to the timing of the
emission reductions of when you need them and over what
time they're helpful.

MS. WAYS: Yesterday. No, definitely within
the time frame of the proposal. I mean, I think
Maryland has had -- the Baltimore area has had a hard
time meeting the current ozone standard, and I know
that we're looking at possibly tightening the standard
in the next few years. So anything we can get as soon
as we can get would definitely be as helpful as we can.

MS. SARGEANT: Thank you.

MR. GRUNDLER: I'd like to pose another
question for Mr. Hirshfeld. Earlier today we heard
some testimony about a study that was commissioned by
the American Petroleum Institute. Are you familiar
with that?

MR. HIRSHFELD: I am.

MR. GRUNDLER: Baker and O'Brien.

MR. HIRSHFELD: I am.

MR. GRUNDLER: Would you care to comment on
the primary differences that account for the cost range
in your work versus the six to nine cents that was
cited this morning?

MR. HIRSHFELD: Sure. There are several.

One has to do with the estimated capital cost for building grass roots FCC post treaters and, hence, for revamping them. The estimate that we use, which I mentioned in my testimony, is about $1,800 of daily barrel. I believe the Baker and O'Brien study used a number that was about double that approximately. So that was one difference.

Another difference is that our focus was on estimating average refining costs. This is sometimes called a social cost or a national cost. And we did not -- well, we did not return or publish a marginal cost, whereas the headline number in the Baker and O'Brien study was a marginal cost, you know, the economics of a high cost refiner. And we did not do that because we didn't think it was appropriate for this analysis.

MR. GRUNDLER: Thank you. Anything further?

[No response.]

MR. GRUNDLER: Thank you so much for your time today.
Okay. The next panel we have some additions, so listen for your name. Irene Harlabatos, Jacqueline Saier, Jalonne White-Newsome, Joy Bergey, and Reverend Mordecai Lebling, Larry Menkes, Christopher Miles, Dawn Patterson, and Reverend Pyrch, and William Kramer.

Welcome. I hope we have enough chairs.

I'd like to begin with Ms. White-Newsome.

DR. WHITE-NEWSOME: Good afternoon. Thank you so much for the opportunity to be here and provide comments on these proposed rules. My name is Dr. Jalonne White-Newsome, and I'm a Federal Policy Analyst with WE ACT for Environmental Justice, a 25-year old EJ organization based in Harlem, New York with offices also in Washington, DC. Our mission is to, of course, build healthy communities and make sure that people of color as well as those at a lower income are part of that process to create sound and fair environmental health policies and practices. And so the inception of our organization, in fact, was based on a clean battle in Northern Manhattan.

So in all of our work, we continue to engage communities as well as work with academic partners and
others to make sure that the protection of human health and welfare, despite the hue of your skin, and the resources in your pocket, or the zip code you happen to live in, impacts your health.

I'm sure you know that the residents of Harlem, New York and many other similar cities and towns across our U.S. are not breathing the same air. Some is clean and some is pretty dirty. But I was reminded of the importance of this yesterday when I went to pick up my two little girls from school.

Usually I go through the same motions of signing them out and saying hi to some of the moms and dads. And I noticed a little girl with two little pigtails sitting having a breathing treatment behind the secretary's desk. And I kind of gave her a smile and kind of looked at her, and thinking about Earth Day and all the celebrations that have been going on. And just realized, this is the reason that most of us in this room engage in this work, to protect those little ones.

And so I also thought about some of the work in Detroit, Michigan, my home town, where I've specifically worked with senior citizens. And in Wayne
County, there has just always been an abundance of air concerns. And my aunt, in particular, who's in her mid-80s, has really been suffering from asthma severely over the past couple of years. And she's lived the majority of her life in neighborhoods that have been compromised by air quality and other toxins. And so this for me is personal for those reasons, first and foremost as a mom, but, secondly, as a public health researcher that has always worked with communities of color and other vulnerable populations, and now as a Federal Policy Analyst, where my goal is to make sure that our voice or some of the voices that are typically not a part of the conversation are interjected into these policy and regulation conversations.

So with all sincerity, I congratulate what you're doing. I'm glad you're here and proposing these standards. And, of course, I hope that you will move quickly to put these standards in motion before the end of the year.

So instead of using the next couple of minutes to reiterate probably a lot of the facts and figures and stats that you've heard, I'd just like to
quickly highlight some issues that really resonate with WE ACT for Environmental Justice and some of the broader environmental justice community.

You know, cumulative risk assessment or cumulative impact assessment, however you want to phrase it, is a way of understanding the real and total impacts on communities. We know that environmental pollution doesn't act in siloes, and that’s what we really need to consider as we look at these different rules.

When you look at EJ communities, they're hot spots. They're areas where there's a lot of things going on, and most of the time the rules and the things that we use to frame these rules don't capture everything that's happening. And so, what I would suggest is that, I guess, really offer a competent suggestion is that keep in mind that having these more stringent standards will work towards minimizing the burden on communities that are already compromised.

So if we focus on really the most vulnerable, I truly believe that more people will benefit overall, and having the rules, like the soot rule, Tier 3, and
others, work in parallel is great. And so my suggestion, however, is that in future analyses, a cumulative impact strategy be employed.

I know that several of your colleagues in the EPA are working towards this as well as developing an environmental justice guidance that will be incorporated throughout the Agency. But I hope that this is something that you will strongly consider in future assessments to make sure that we get a real glimpse of the impacts and the benefits that come from these proposed rules.

And last, but certainly not least, is the importance of this rule on climate change. While the rule documentation specifically states that an increase or decrease in greenhouse gas emissions gases cannot be ascertained with certainty at this point because of the expected emission increases in the refinery process, what you're proposing here I think, whether now or in the future will reduce GHG emissions. And this is critical.

As an engineer that has been in several plants over the past 10 or 12 years, I'm confident that
technology will advance accordingly. And so we can say with confidence in the future that there will be a net reduction in CO2 emissions and subsequently a net reduction in negative health impacts. And that is why I think it is so critical and so important what you're doing, that we take every step to improve our air quality, especially for those that suffer respiratory and cardiovascular challenges during extremely hot weather or heat waves, whatever you want to call them, that we will continue to experience more frequently in our changing climate.

So in conclusion, I was really pleased to read the section in the proposed rule that addresses the obvious challenges that environmental justice communities deal with every day: elevated air toxins, the proximity to high traffic roads, and other multiple stressors and health risk factors that really add to determining what your health is going to be.

So while we wait for the science and the methods to catch up to better capture these associations between air pollution, health, and other chronic and physical stressors, these proposed
standards, the Tier 3, are one step forward to reducing that burden on EJ communities. So we support your work, appreciate your effort, and hope again that you will move expeditiously as you filter through the many comments and considerations at this hearing and others.

And so I hope, last but not least, that the face of that little girl reminds you that you and your work truly impacts the lives of those who are most precious to each and every one of us. Thank you.

MR. GRUNDLER: Thank you very much.

Christopher Miles, welcome.

MR. MILES: Thank you. Good afternoon. I'm sorry, my remarks are informal and I apologize for that.

MR. GRUNDLER: NO apologies necessary.

MR. MILES: I was asked very, very quickly to speak for the Sierra Club, and I'm speaking on behalf of that club and many of the other folks that have actually taken their time out to speak much more eloquently than I can.

I'm just speaking on behalf of myself and my little family in East Falls, which is a small little
community, growing, just near Route 1, which all night, day, and the following night keeps us up not only with noise, but actually we can smell the fumes. I ride my bike up and down East River Drive, and again, the fumes.

And I was wondering on behalf of the folks that enjoy the outdoors, especially in inner city areas, whether we can't do more and whether we should do more. We just heard about environmental justice certainly in areas where folks are trying to keep a home and grow a family. We have concerns about letting kids go outside and play at various hours. How close can we be to the highway and is it safe? And so I have, you know, some genuine concerns.

There was a gentleman that asked a question about ABG, and I'm hoping someone on the record can clear that up, whether ABG standards will affect refineries. And that term is sort of an industry buzzword. I'm not familiar with that acronym.

Going forward, there were a couple of things I had concerns with. A lot of the car companies don't seem to be interested in dealing with the pollution
before a catalytic converter warms up, the so-called open loop phase. And I'm wondering if that could be included in some of your thinking. Perhaps something could be included where an auto maker might get credit for a start and stop system whereby if someone is at a drive-thru, instead of polluting, the car would just stop automatically, and thereby wouldn't pollute, and perhaps could get credit if they didn't completely meet some of these other tough standards.

I was also concerned about some of the vapor and evaporation at gas pumps and whether that could be included in this, or whether in a separate rule. So I was thinking along the lines of cumulative that you could do, especially when it comes to congressional negotiations that happen when something gets lowered. Perhaps an all-inclusive thing might get to our goal without focusing on one small area.

Again, I was also concerned about the refineries, what are they going to do with this, the sulfur. Is it going to be resold? Is there a market for that? Are they going to deal with sulfur cleanup and then clean in an effective manner? And finally, I
1 was wondering -- I guess the ABG speaks to that -- will
2 the refineries get credits of some sort for
3 alternatives, or will there be some sort of a bonus or
4 subsidy provided so that if an alternative, say, from
5 an algae or greenfield comes along, it could be dropped
6 in, and there could be an exchange of some sort.
7 And that's the end of my testimony. And
8 thank you for this opportunity.
9 MR. GRUNDLER: Thank you very much.
10 Reverend Pyrch, the floor is yours.
11 REVEREND PYRCH: My name is Cheryl Pyrch.
12 I'm the pastor at Summit Presbyterian Church in
13 Philadelphia, and I am also a board member of
14 Pennsylvania Interfaith Power and Light, part of a
15 national organization of people of faith concerned
16 about climate change.
17 I want to thank the EPA and President Obama
18 for proposing the Tier 3 standards, and thank you for
19 this opportunity to speak.
20 In our tradition, as in many other faith
21 traditions, we believe that the heavens and earth were
22 created by a loving God, and provided all that is
needed for life. Our response to such a gift and such
a blessing should be thanksgiving, which means caring
for the earth, not trashing it, and for all who live
upon it. We believe that God also calls us to love our
neighbors as ourselves, especially the poor and the
vulnerable.

We enthusiastically support the Tier 3 Rule
as a way to care for the earth and our neighbors, as
well as our families and ourselves. As others have
pointed out, the further cleaning up of gasoline
exhaust will prevent thousands of premature deaths and
asthma attacks each year and will be good for all
living things. It's also, as others have pointed out,
a common sense, modest proposal. It's a standard the
auto industry is fully capable of making and will put
the rest of the nation in line with California's more
stringent and laudable standards.

Some people have objected by pointing out
emissions have already dropped dramatically in the past
decades, but of course that's all the more reason to
institute the rule, for what better than to build on
success?
Dr. White-Newsome also mentioned climate change. And although she did point out this rule will not bear directly at this time on greenhouse gas emissions reductions, we know that catastrophe barreling down upon us threatens all of life if we do not move as quickly as we can away from fossil fuels. Anything we can do in the meantime to protect life, such as the Tier 3 standards, is imperative.

We can expect opposition from the fossil fuel industry, but I encourage the EPA to stand firm in the face of their protest and to institute as quickly as possible the Tier 3 Rule.

Thank you again for your work on behalf of the Nation and the larger world, and thank you for letting me speak.

MR. GRUNDLER: Thank you, Reverend, so much.

Ms. Saier?

MS. SAIER: I don't think I could top her.

[Laughter.]

MS. SAIER: I have to stand. I have a very bad back, but it's worth me coming here.

I live in Port Richmond, beautiful area, and
over a year ago I noticed the kids on the playground across the street from me. They all looked like they had asthma. Everyone was choking and coughing and coughing. I never dawned on me it was soot, and that's what I'm here to fight, the soot.

When I first met Chris Mays from Clean Air, I left my window sill dirty only for three days, and you should see the soot I have on that window sill. My neighbor and I have, well, we wash our windows. You have to wash them with soap and water first and then Windex just to get the soot off, or you have smeary windows. And you'd be surprised how much dirt, soot, are on the windows.

Now, I'm only a housewife and a grandmom. I'm not a speaker, but it's very important to me and my grandchildren. One son lives up the street from me. One son lives across the street -- I mean, two blocks down. And they have their own children that live in Port Richmond, and they don't want to leave. And they love it there just like I do.

I came there in 1968, and it was my husband's childhood home we have been in for over 60 -- he's been
there over 63 years. We don't want to move. And the
other thing is sometimes it makes you wonder if we
should.

Now here in the past summer months, I had
three heart attacks, and not only that, I had cataracts
removed. And it was a nurse that was here the last
time I came to speak, and I stopped her at the back
door. I said, what do you mean heart attack with soot?
I looked into it. Yes, you breathe in soot, and it
goes through your lungs, and before you know it, it's
going through your heart, and it can accumulate.

The same thing as cataracts. I just had
another one removed. When I asked my doctor about it,
I said, what is it from? Dirt. And I asked him could
soot do this, and he said yes, soot. That's why most
people who drive wind up with a cataract in one eye
more than this eye, he said, because they drive with
the window down. And I didn't realize how much soot
really takes a toll on you.

Now, the other thing is ice cream trucks and
traffic all along my area. I am stuck between Aramingo
Avenue, I-95, Alleghany back to Castor where everyone
goes to get on or off 95. The thing is, the smells from all these place -- like I said, we are trapped in Port Richmond. And here, for instance, the ice cream truck that stops across the street, you can smell the fumes from that truck if everyone ever stood behind one. Now, that shouldn't be like that, but it is. It's the way it is, and you -- what else can you do? Tell the guy shut down his motor? No, you can't.

I had so much to say, but right now I'm very uncomfortable, and I have to leave. That's all.

MR. GRUNDLER: Thank you so much for coming. And don't sell yourself short about not being a good speaker.

I'd now like to invite Larry Menkes to provide testimony.

MR. MENKES: My name is Larry Menkes. I am a nationally certified sustainable building advisor, and I do a lot of work to make buildings more energy efficient. And I'm really pleased and thank you for this opportunity to testify today. Although I'm here at the invitation of the American Lung Association, I'm also here for a number
of other organizations represented that I am either a
member of or working member of. I am with the
Association for the Study of Peak Oil, and they concern
themselves with a lot of environmental issues. And we
are a think tank.

I am here, though, on behalf of myself, my
children, my wife, my grandchildren, and my three great
granddaughters.

After 35 years of living in clean air
regions, like Southeast Florida and Connecticut, and at
sea where I spent 12 years in the merchant marines,
including time in Vietnam with them, where I escaped
virtually unscathed, these were areas that were
virtually pollution free compared to this area here.
I've been back in the area since about 1990, either
working full time or living full time.

And I was born and raised in this area, and
I'd lie to retire in this area. Bucks County is a
beautiful section of Pennsylvania, and I've always
wanted to live there. But since I've been back, I've
contracted cancer. I've contracted asthma and several
other conditions that my doctors link to air pollution.
I do a lot to prevent it. I buy hybrid cars for my family. I'm making my home energy efficient. It's a net zero pollution home. However, I can't do anything about everybody else's pollution.

In the Tragedy of the Commons, there's a game called the PPCC game, privatize the profits and commonize the costs. The costs are commonized by using the commons, which is our air, which is our water, and other things like that, to use as basically a toilet. The people that pollute it, and I admit that I do a little bit of pollution because I drive occasionally, and even rode the train here that has some pollution attached to it. But unfortunately, I can't stop the bulk of everybody else's pollution.

Now, certain industries who oppose this legislation, and I think it's wonderful, and I've been waiting for years. I know that this region has had no compliance with air standards since 1977. I served on the DBRPC and learned things like that here. But, you know, putting it bluntly, I regard myself as being poisoned, slowly poisoned by anyone and everyone who is a high polluter or even a medium polluter. I'm being
poisoned slowly, and if these people would come and put
a little bit of what they're putting in the air that I
breathe into my water, they could be tried for murder
if we caught them.

Now, I'm taking this kind of personally
because I'm in my retirement age, and my conditions
have prevented me from working. My wife is working
three jobs to support us, and I'm working on creating a
job for myself, but in these economic times, it's not
easy.

Reverend Brown mentioned the morality and
ethics of this, and I think that that trumps everything
else. I don't think anyone has a right to poison me or
my children or my family in any way, shape, or form.
And the Tier 3 standards will go a long way toward
preventing some of the most egregious part of that.

I used to work as an over the road truck
driver because the money there was better than some of
my friends who had Ph.D.'s were doing. And I've spent
a lot of days out on the road, and I can't plan where I
go because the company that I work for plans it. And I
can't plan to be away from the exposure to these
toxins. Now, maybe that was a part of it, but I don't know. But these people have no right -- no right -- to poison me and my family. And that's all I have to say.

Thank you.

MR. GRUNDLER: Thank you very much, Mr. Menkes.

Ms. Patterson?

MS. PATTERSON: Good Afternoon. My name is Dawn Patterson, and I am here today to urge the U.S. Environmental Protection Agency to adopt final cleaner gasoline and vehicle standards that will cut life-threatening tailpipe pollution. I am speaking on behalf of the Pennsylvania Society for Respiratory Care and as an individual Citizen, and I ask you not to delay and to please finalize these standards by year's end.

I serve as the Southeast Pennsylvania District Director for the PSRC. It's organization that represents 6,500 respiratory therapists in our State. The mission of the PSRC is to advance the art and science of respiratory care through educational publications and programs for its members, other
medical professions, and the general public and to promote pulmonary health and disease prevention. PSRC supports EPA's proposed standards for cleaner gasoline and vehicles because we believe the intent is closely aligned with our mission of preventing disease and promoting pulmonary health, as well as public health generally.

As a respiratory therapist working with people whose health is already comprised by chronic obstructive pulmonary disease, asthma, and other diseases, I am well aware of how poor air quality can have serious impact on their ability to breathe. I live it every day, and it is heartbreaking for me to watch my patients gasp for air. I know my fellow PSRC members all have similar stories. EPA can take measures to help these people breathe easier and the cleaner gasoline and vehicle standards is one of the most cost-effective ways to do so.

Cars, light trucks, and SUVs are a major source of pollution that contributes to smog and soot. Pollutants can trigger asthma attacks, harm heart and lung health, and worsen existing conditions such as
COPD. Smog and soot pollution can even lead to early death.

Strong, cleaner gasoline and vehicle standards will also help reduce the pollutants caused by using gasoline in vehicles, some of which have been linked to cancer. The scientific evidence shows that there may be a link between increased rates of lung cancer and incomplete burning of gasoline.

As someone who has lost two of loved ones -- my mother in 2003 and my boyfriend in 2008 -- to lung cancer, I am acutely aware of the need to reduce our risk to cancer causing toxic emissions. Cleaning up gasoline and life-threatening tailpipe pollution can save thousands of lives each year, and ease the burden millions of Americans face every day because of unhealthy air.

I just want to thank you for the opportunity to speak in support of the cleaner gasoline vehicle standards today. And on behalf the Pennsylvania Society for Respiratory Care and someone who cares deeply about the quality of our air, I urge you to move forward with these lifesaving standards, and adopt
final standards no later than the end of this year.

I just want to give one personal story. I have like two minutes left. When my mother was in the hospital, she was in for six months. She had her right lung removed because of cancer. And her left lung, she had emphysema. What she wanted to do was just go outside. It took about six weeks to get her off the ventilator. We weaned her off, put on a trach collar. She was down to 21 percent. She was only on the trach collar just so that she could have moisture for her secretions.

She urged -- she said, Dawn, can I please just go out and just, you know, just get some sun on my face. I'm like, I don't know. I don't know. Let me talk to the pulmonologist. I talked to the doctor. The doctor is, like, no, she really can't. The air quality is really, really poor.

Well, I took that back to my mom. My mom shut down. She was, like, all right, fine. My mom was very stubborn, very, very stubborn. She wouldn't eat. She wouldn't take any of her meds. She goes, Dawn, all's I want to do is just go outside and just get that
sunlight on my face. So I said to the doctor, can we just take her out just for five minutes? I swear I'll bring her right back.

So we got the oxygen tank. We put her on 50 percent. Got blankets, even though it was in the summer, and we took her outside. We took her out for, I don't know, 30 seconds. She goes, I need to get back in. I can't breathe because the air quality was so poor. My mom could not even enjoy 30 seconds of sunlight.

But she did take her meds, and she did, you know, start to eat. But unfortunately she did pass away in 2003. But I just wanted to share that with you and see how important it is to me personally because I do see patients all the time, and they are gasping for air.

Thank you.

MR. GRUNDLER: Thank you, and thank you for sharing that.

Irene, I can't see your whole card, so please --

DR. HARLABATOS: Irene Harlabatos.

DR. HARLABATOS: I was very impressed that you were able to pronounce that, and I really, really appreciate this opportunity. I have never done this before, so you'll have to bear with me. I found out about this opportunity from the Sierra Club, and I jumped on it because I feel very strongly about this. Unfortunately, I do not have anything prepared, so this is going to be extemporaneous. Hopefully I'll be able to get my thoughts out. I'm a physician in an allergy and asthma practice in the area. We have multiple outpatient offices. I'm not representing the practice, however. I'm representing myself, my family, and as a physician as well. I've long felt very strongly about many environmental issues. I feel if the physical substrate for health is not there, then health is not going to be there.

Every day I see multiple people. I see the little girl she talked about on the nebulizer. I see several of them at least every day. And I see people of all ages from birth to, you know, elderly who are
suffering from respiratory illnesses, usually asthma,
but I see COPD. I have seen multiple other respiratory
diseases.

And I've seen people who immigrate from other
countries, never had any respiratory issues, and within
a year or two of being here, develop respiratory
issues. I see people who develop asthma after never
having it before, you know, at age 50 or 60. And, you
know, they're like, why would this happen, and I can
never answer with them 100 percent certainty, but I've
always been concerned about air quality.

I've known many people who they don't have
asthma in their family, but they have asthma. And I
know that there's several, you know, studies that link
automotive exhaust and asthma, and I know that in 9/11
when they closed down the bridge between the United
States and Canada because they secured our borders,
asthma exacerbations in that area fell down
dramatically for those several days because the trucks
-- the diesel trucks were no longer passing back and
forth.

I know that in the 90s, in the '96 Olympics
in Atlanta, they closed down traffic for the Olympics
in the summer, and asthma emergency room visits
plummeted. I know I have patients who don't leave
their house during certain days in the summer. They
just -- if they're lucky enough to have central air,
they keep it on and they stay indoors. And none of
them want to live that way, and I don't feel that it's
right that people should.

And I feel that after hearing about one cent
increase per gallon, the cost for gasoline to pay for
stricter standards, I can't believe we're arguing about
this in the year 2013 with all the knowledge we have.
I don't feel that the science is ambiguous. I don't
feel the health effects are ambiguous. I don't feel
that there really is any question, as far as I'm
concerned, what the right thing to do is.

I fully support these new standards, and I
will be, you know, very discouraged if they are not
implemented as soon as possible. And that's it.

MR. GRUNDLER: Thank you so much, all of you,
particularly those of you who are here just
representing yourselves and sharing these stories. I
know it's not easy. It's not something you may do every day, but it's very, very meaningful to all of us. So thank you again. All right.

MR. MACHIELE: Oh, I'm sorry. I don't have a question, but to Christopher, what I said was ABT, and that's just an acronym for averaging banking and trading. So it allows one refinery to -- a little further control in exchange for another one not quite going as far. So it's just averaging.

MR. MILES: That was talking about the cost that the refinery is claiming versus the findings that you all have. Okay.

MR. MACHIELE: Yeah. For example, if you have a -- if a refinery is going to -- if it's going to cost a lot more for a refinery to comply than for another one to go even further, then the one that can go further goes further, and the one -- and sells credits back to the other one, or trades within the company.

DR. HARLABATOS: What does it stand for again? What is it, ABT?
MR. MACHIELE: Averaging banking and trading. It's a common thing in many of our rulemakings. So that's why it rolled off my tongue. I'm sorry.

MR. MILES: Thank you very much.

MR. GRUNDLER: Let me just also add, Christopher, you asked a bunch of questions.

MR. MILES: Yeah, sorry.

MR. GRUNDLER: That's okay, and I'm not going to answer them, but I do want you to know that many of the questions are, in fact, addressed in the proposal with respect to cold start emissions and so on. So if you'd like to know more, our folks out in the hall can tell you where to find that information to get your answers.

MR. MILES: Well, expect my support then.

[Laughter.]

MR. GRUNDLER: You should read it first.

[Laughter.]

MR. GRUNDLER: Thanks again, panel.

UNIDENTIFIED SPEAKER: Thank you.

MR. GRUNDLER: Panel 6. Okay. Let me invite the 3:00 panel up. We're running a little ahead of
schedule for now. There are new additions to the panel that I'd like to announce. Robin Mann and Emily Davis, along with Steve Ross, Frank Krich, David Lukens, Susan Edwards, Nick Rogers, and Karen Melton. Come on down.

Mr. Krich, let's begin with you.

MR. KRICH: Okay, thank you. Good afternoon.

I'm Frank Krich, Senior Engineer at Chrysler Group LLC, and I'm here today to express our support for the Environmental Protection Agency's complete Tier 3 package. Chrysler supports 10 ppm average sulfur gasoline and single, harmonized national criteria pollutant performance standards that treat all technologies equally and contribute to meeting EPA's air quality and greenhouse gas objectives.

As in previous rulemakings, Tier 3 continues to treat vehicles and fuels as a system, recognizing that fuels are critically important to achieve the full potential of advanced emission control technologies, especially during these historic time when regulations are driving near zero emissions and doubling fuel economy. Sulfur is the single most important gasoline parameter to enable vehicle technologies to meet these
new requirements. The cause and effects are well known. Sulfur inhibits exhaust after treatment conversion efficiency, so lower sulfur means lower emissions.

California recognizes the environmental benefits of low sulfur gasoline and includes 10 ppm sulfur in its LEV III regulation as an enabler to meet the Air Resources Board's super ultra-low emission vehicle fleet average requirements. This same gasoline is therefore needed to harmonize Tier 3 and California LEV III to realize the emission benefits and to maximize new vehicle development and manufacturing efficiency.

Low sulfur gasoline not only enables advanced technologies to achieve intended emission benefits, it has an immediate and significant effect on the 250 million vehicles on the road today, lowering emissions and helping States achieve attainment of ozone National Ambient Air Quality Standards.

Lowering sulfur is also directionally correct for reducing particulate matter and toxic air contaminants, as well as nitrous oxide and methane, two
potential greenhouse gasses. In addition, EPA's creation of new fuel economy and greenhouse gas standards anticipated the nationwide availability of low sulfur gasoline. Consistent with that basis, Chrysler supported the concept of one national program to improve fuel economy and reduce greenhouse gas emissions with the understanding that low sulfur gasoline would be called for in the next round of establishing tailpipe emissions standards, and which would ensure availability to enable advanced lean burn gasoline direct injection technologies.

Advanced lean burn GDI systems are an enabling technology to meet EPA and the National Highway Traffic Safety Administration's 2025 model year greenhouse gas and fuel economy requirements. Ten ppm or less sulfur gasoline is a prerequisite for achieving intended greenhouse gas and fuel economy benefits from lean burn GDI systems. Without low sulfur gasoline, lean burn GDI systems incur a significant fuel economy and corresponding greenhouse gas penalty due to more frequent sulfur regeneration events.

The auto industry has already invested
hundreds of millions of dollars to design, develop, tool and, in some cases, manufacture and produce lean burn GDI systems. Without absolute assurance of low sulfur gasoline in the marketplace, the greatly reduced performance of lean burn GDI will reduce use of this technology.

We will continue to work with EPA to bring California LEV III and Tier 3 as close as possible, with the goal of a completely harmonized California and Federal, one national criteria pollutant program. Low sulfur gasoline is a vitally important and critical element in achieving this goal.

Thank you for your time and consideration.

MR. GRUNDLER: Thank you.

Ms. Davis, welcome.

MS. DAVIS: I have been commuting by bicycle in Philadelphia for about 30 years. While I feel this means of transportation has been a net benefit to my health, I wonder when I end up coughing as sit in traffic with pollution generating vehicles. The black dust I clean from the sills of my street side windows makes me wonder what my lungs must look like. I don't
find this black dust on the sills of my back windows.

It is illegal to litter, yet we permit cars and industry to dump their wastes into our air for free. Just because this tailpipe litter is too small to see doesn't make it all right. In fact, the invisibility of this litter makes it more important for our government to regulate strongly. Our air cannot be used as a place to dump our wastes. We need clean air to breathe and to live healthy lives.

MR. GRUNDLER: Thank you for that.

Mr. Kramer?

MR. KRAMER: Hello. My name is William Kramer. I am a Field Organizer with the Sierra Club in Philadelphia. And thanks for having us here today. I'm also the father of a six-year-old who hopefully will be here later, and maybe we can convince him to testify.

He is pretty educated on pollution and climate change. He thinks climate change will be World War III or is World War III. And he also wants to make and build -- become an inventor when he grows up and build a machine to go back in time to get rid of
pollution, which with climate change, that may be the only thing we could -- way we can rid of it. And his mother, who will hopefully be with him, is studying to be an EMT, so she knows well about public health issues.

And, I mean, I personally hate cars. I spent 10 years in L.A., and that really made me hate cars. But I love trains, buses, and bikes. I live actually far away from here, but I take the train even though it takes twice the time because it's very pleasant.

In addition, as you can see, I dressed a little differently than everybody else today. I'm an endangered tree frog. And as Kermit said, it's not easy being green. Now, why isn't it easy being green these days? Well, we're really seeing deteriorating air quality. Philadelphia gets an F for air quality. And we're also seeing skyrocketing asthma rates, especially for kids. And as I'm sure plenty of people have testified already, asthma is no joke. You're in the hospital and hoping you're going to live. And I have a friend who's told me many of her stories of being hospitalized with asthma.
Primarily what I wanted to say was that I think it's a real -- pollution in this city and all over the world really is a race and class issue. Poor people and people of color, or people of the global majority they're now called, disproportionately suffer. African-American neighborhoods have asthma rates of up to 25 percent in Philadelphia, so it's a real crisis.

You know, I'm fortunate. I have what they call white middle class privilege and a white skin privilege, so I'm less likely to suffer from asthma or other air pollution problems, but that's not the case in the majority of people in this town. I think we've had a decent mix racially today, but probably not the mix we could have or should have. You know, when I ride SEPTA, I feel like that's when I get to see the demographics of Philadelphia, so perhaps one day we'll have a hearing where it looks like the people that ride on SEPTA.

But at the Sierra Club, we've engaged 20 new African-American activists in the last year in our work and despite what some people have said, it's been really easy actually to do outreach in communities of
color, and particularly in black communities. And why is that? Because everyone has a connection to asthma. You know, if I go to an environmental fair, people might be more interested in cars or consumer products connected to the environment. But if we go to, like, Sue, my colleague, who will speak later, and I go to another event in an African-American neighborhood, if we go to a church, a street fair, there's been health fairs, all sorts of events, everybody understands what we're talking about.

I think a lot more black Philadelphians would be here today if it weren't for the many problems they face, most of it due to racism. So, you know, here if you're black in Philadelphia, you're facing underfunded and poorly run schools, a bunch of which are about to be shut down, lack of access to good jobs or any jobs at all due to discrimination, and dealing with crime in your neighborhoods, which is ultimately rooted, I believe, in racism, at least to poverty that forces people into crime. The Wire understands the logic of that.

So I will quickly mention a couple of people
that we tried to get to come here today, but because of work and family responsibilities and other civic activities could not be here. We have Kevin who we've worked with who's great. He's a teacher. He grew up in the projects. Now he's a proud science teacher, a great science teacher. He testified at the past hearing, and he was wonderful. But his son has asthma. We have Charlotte Leeks, who's a respiratory therapist who's come down to D.C. with us to speak, also African-American. And she gets it as a respiratory therapist. Mary Brown Waters, her daughter has asthma. She's active a lot in her home and school or PTA because, you know, the schools are so bad. She's got to be involved there. Gary is a café owner. He started a wonderful café and he's really organizing in his community through his coffee shop. And Dorsha Turpin, she's got a child with asthma. She spoke here before. And Mary Leeks has a child both autistic and asthmatic.

So I hate to speak on behalf of other people, but sometimes it's hard to get people who are affected by these problems to come because of their other issues they face. So I think it's important to them.
And the bottom line there is air pollution is a key issue of our emerging majority, majority population our city, and then our country is affected by these problems disproportionately. So if we really want to be a democracy that, you know, addresses the needs and health needs of the majority of our population, especially at the lower income and communities of color, we really have to address air pollution. So I'm glad we're coming up with a new rule to do that.

Thank you very much.

MR. GRUNDLER: Thank you, Mr. Kramer. And your son is welcome to testify later.

Ms. Mann?

MS. MANN: Thank you for the opportunity to testify. My name is Robin Mann. Though I am the immediate past President of the Sierra Club, I'm here today as a resident of the Greater Philadelphia area and as a mother and grandmother. At a time when too many Americans are struggling with asthma and other serious health problems associated with air pollution, I applaud the EPA for proposing standards that will
significantly reduce smog-forming pollution from cars and trucks and improve the quality of the air that we breathe. I urge you to move forward with these standards as soon as possible.

In Philadelphia, cars and trucks are the leading source of nitrogen oxides and a significant source of other health-threatening pollution, including volatile organic compounds and particulate matter. In their 2012 State of the Air report card, the American Lung Association noted the severe pollution in Philadelphia County, giving it an F for both ozone and particulate pollution. This pollution threatens the health and lives of Philadelphia residents, particularly children, causing asthma, heart disease, and cancer. And some of Philadelphia's neighborhoods that are particularly hemmed in by heavily congested highways suffer disproportionately from the pollution.

The proposed cleaner tailpipe standards would substantially reduce health threatening pollution from our cars and trucks. By requiring refiners to produce lower sulfur gasoline, the standards would reduce nitrogen oxide emissions nationwide by more than
260,000 tons, the equivalent of taking 33 million cars off the road. By requiring auto makers to use advanced pollution control technology, the standards will reduce a host of health threatening pollutions -- pollutants. Lower sulfur gasoline will also allow advanced pollution control technology in cars to work more efficiently.

The health benefits from the proposed standards are substantial. According to your proposal, the standards will prevent up to 2,400 premature deaths, 3,200 hospital visits and 22,000 asthma attacks annually by 2030. Additionally, the standards would prevent 1.8 million lost school and work days.

It comes as no surprise that the oil industry is once again fighting measures to protect our public health. Although independent studies have concluded that the proposed standards would cost less than a penny per gallon, the American Petroleum Institute and their oil industry allies have resorted to once again raising the specter of skyrocketing gas prices. I urge you to stand up to big oil and move forward with these standards.
This is a clear win-win situation. Less pollution will save lives and reduce asthma attacks, all while substantially reducing health care costs. Your proposal notes that these health benefits could be as much as $23 billion annually by 2030. At the same time, these standards will create jobs. New refinery and vehicle technologies will create jobs in design, manufacturing, installation, and maintenance. Auto makers, auto workers, public health organizations, consumer groups and state clean air officials all understand this and are supportive of cleaner tailpipe standards.

In finalizing these strong cleaner tailpipe standards, you have the opportunity to give American in Philadelphia and across the country cleaner air to breathe. We have the technology to reduce tailpipe pollution and protect our public health. It's time to put that technology to work.

I thank you for proposing these Tier 3 tailpipe standards and urge you to finalize them as soon as possible. And thank you again for the opportunity.
MR. GRUNDLER: Thank you.

Ms. Edwards, you're up.

MS. EDWARDS: Thank you, and I'm so glad you hold these hearings in Philadelphia because it makes it easier for us to get here. We went down to Washington when you had them down there, but it's easier to be here.

As a retired educational specialist and Sierra Club activist, I'm here to say that I speak up for cleaning what is coming out of auto tailpipes in the U.S. as a fairness as well as a public health issue.

While this is a national story, I want to focus on the local ramifications. In 2012, the American Lung Association reported that Philadelphia failed miserably in terms of both ozone and particle pollution. As Philadelphia Magazine put it, "Here in Philadelphia County, the Air Quality Index shows that we have an average of 34 orange high-ozone days a year, meaning Philadelphians endure over a month's worth of days during which the air is decidedly unhealthy to breathe. Even scarier, we average one red ozone day
year when ozone levels are considered unhealthy for the entire population." Philadelphians should know that the city -- that our city tied with St. Louis as the 10th worst in the Nation in terms of air pollution.

In my environmental advocacy work, which William spoke about already, I have recently had the opportunity to speak to many Philadelphia residents about the connections between clean air, climate change, and asthma, while I petitioned at health fairs, tabled in in communities, spoke to home and school representatives, led environmental story hours at a local library and a church camp, and more. Everywhere I went, particularly in African American neighborhoods, people have children, grandchildren, siblings, or other family members with asthma. In some instances, it was -- if I would ask for a show of hands, it was as high as 75 or 80 percent of the people in the room had somebody close to them with asthma. And actually the highest rates, I believe, in some of our neighborhoods are 30 percent of children have asthma. And asthma has increased 50 percent among African-American children between 2001 and 2009, so it's really an epidemic or a
1 crisis situation.
2 And it's also the case the five times as many
3 children as adults with asthma die from the condition,
4 so I believe this standard is this. So I believe this
5 is the least we can do. As long as we still use
6 gasoline powered cars, which I hope we can transition
7 away from as rapidly as feasible, it's the least we can
8 do to reduce the pollution these cars create.
9 Thank you for this opportunity to speak.
10 MR. GRUNDLER: Thank you.
11 Ms. Melton.
12 MS. MELTON: Good afternoon. My name is
13 Karen Melton. The name I've registered for my personal
14 activities is Advocate for Earth. I'm also active with
15 the Sierra Club, the Chester County Citizens for
16 Climate Protection, and the Climate Reality Project.
17 Thank you for allowing me to testify on the Tier 3
18 vehicle emission and fuel standards program.
19 At the end of 2012 I accepted an early
20 retirement offer from my employer of 30 years, the
21 Health Care Division of Siemens AG. In part I accepted
22 the offer because I knew what I needed to spend my time
1 doing. My light-hearted description was that I was
2 leaving gainful employment to try to save the planet,
3 but sadly, this was entirely true. I could be happy
4 tending my butterfly garden and volunteering in my
5 community, but instead I spend most of my time giving
6 presentations on climate change and how to reduce your
7 carbon footprint. I attend a myriad of eco events to
8 talk to people about clean air and clean energy,
9 volunteer with various organizations that are working
10 on clean air and clean energy, try to meet with my
11 elected representatives to discuss their positions, and
12 refute nonsense disseminated to the media by the fossil
13 fuel industry, an industry fully prepared to continue
14 business as usual on the improbable chance that somehow
15 decades of study by thousands of scientists on climate
16 change will turn out to be wrong.
17 In these endeavors, I am joined by a huge
18 number of people belonging to an amazing number of
19 organizations. But what we don't have are the billions
20 of dollars and unlimited access to elected officials
21 needed to counter the resources and access of fossil
22 fuel companies, five of which were among the 10 most
profitable companies on the planet in 2012.

There is no doubt that the fossil fuel energy revolution a century ago completely changed the course of human life. We have enjoyed vast improvements in all aspects of living. However, the impact of burning fossil fuels on the ecosystem that supports and sustains us began to be recognized and documented decades ago. Regulatory steps began to be taken to improve air and water quality in the 1970's. The Tier 3 vehicle emission and fuel standards you propose today are another important step in the right direction. It is a modest change, bringing the U.S. standard for sulfur content in gasoline in line with California, Japan, and EU countries.

We are all complicit in the poisoning of our planet, but those who make fortunes from it, who fund pseudo-science denial instead of helping to reach for a clean energy economy, and who oppose incremental regulatory regulations such as this one, consign their own grandchildren as well as ours, to a future of increasing disease and premature deaths as a result of exposure to particulates and toxic pollutants from
vehicle emissions.

The fossil fuel industry argues that this regulation will cost more than the one cent a gallon estimated by the EPA and is, therefore, too burdensome. Meanwhile, individuals pay with their health for asthma brought on or worsened by poor air quality, and businesses pay the price of lost worker days.

Please finalize this regulation to help save lives and help save the planet.

MR. GRUNDLER: Thank you very much.

Do we we have any questions?

MR. MACHIELE: I do. I have one question for Frank. With respect to the system or the sulfur regeneration events, is that specific to lean burn GDI only?

MR. KRICH: Well, that's the only one that would have that -- you know, the regular converted gasoline vehicles don't have that feature.

MR. MACHIELE: Okay.

MR. KRICH: But, like, with the diesel, they have the regenerator, we'll have to do that with the lean GDI, and we're already doing some tests on
engines, and we're finding out that, you know, it could increase the regenerations by like three times of what it would normally be.

So, I mean, so the benefit you get from GDI, almost half that benefit could be lost because you're doing regens, because, as you know, regen requires you to enrich the fuel and, you know, there goes your fuel economy and things like that.

MR. MACHIELE: Okay. Thank you for that.

MR. GRUNDLER: Thank you very much. We're going to take a 20-minute break now and reconvene at 3:05. Make that 3:07.

[Whereupon, the meeting was recessed briefly at 2:47 p.m., to reconvene at 3:07 p.m.]

MR. GRUNDLER: If I can welcome panel seven: Mr. Steve Ross, Nick Rogers, Laureen Boyles, Mona Safarty, David Lukens, Jim Hart, Charlie Bugg, Russell Zerbo, welcome.

Dr. Rizzo, you'll lead off.

DR. RIZZO: Good afternoon, and thank you for the opportunity to testify today in support of Tier 3 motor vehicle emissions and fuel standards program. My
name is Dr. Albert Rizzo, and I'm Chief of the Pulmonary Critical Care Medicine Section at Christiana Care Health System in Delaware. I've been caring for Delawareans for over 30 years because of their lung disease.

As a pulmonary physician, I'm here to advocate for my patients with lung disease, and in my role as immediate Past Chair of the National Board of Directors of the American Lung Association, I'm here to advocate for not only those millions of Americans who deal with lung disease, but also for those millions of infants, children, teenagers, and seniors who don't want to develop lung disease.

It's in the best interest of public health for our society, and for this reason the American Lung Association urges the U.S. Environmental Protection Agency to adopt final cleaner gasoline and vehicle standards before the end of the year. Let me start by describing the health effects of tailpipe pollution. Motor vehicles are a major source of nitrogen dioxide, carbon monoxide, and volatile organic compounds. These are the raw
ingredients needed to form harmful ozone and particulate matter.

Ground level ozone or smog that blankets much of the United States during the summer is a powerful respiratory irritant, and when inhaled, the ozone damages the lung tissue much like the summer sun burns our skin.

Ozone air pollution poses health risks for all who are exposed, be they infants, children, teenagers, or seniors, and it is particularly troublesome to the nearly 26 million with asthma and 13 million with COPD, and the millions of others with lung diseases. Just as importantly, even healthy adults who work or play outdoors are at risk.

The EPA's just completed assessment of ozone shows that the health effects are not limited to the respiratory system and may affect cardiovascular health, the central nervous system, as well as the reproductive and developmental systems.

The pollutants, nitrogen oxides, and sulfur are byproducts of gasoline combustion are transformed into fine particles in the air. These tiny particles
are less than one-tenth the diameter of a single human
hair, and they're so tiny that they bypassed the body's
defenses of the nose and upper airways and lodge deep
within the lung. This is where they cause the human
health problem.

Particle pollution also diminishes lung
function, causes greater use of asthma medications, and
increases the rate of school absenteeism, emergency
room visits, and hospital admissions.

Both particulate matter and ozone cause the
most egregious harm as well: premature death.

Unfortunately death is not the only harm these
pollutants cause. For hundreds of thousands of people,
polluted air means more breathing problems on a day-to-
day basis, aggravated asthma, fear-filled trips to the
emergency room, and admissions to the hospital,
sometimes in the intensive care units. These are the
patients that I and physicians like me see daily in the
hospital and in our practice. My patients already have
reduced lung function because of their COPD, asthma,
pulmonary fibrosis, and other diseases.

Their reserve to handle any additional
impairment is limited, and the exposure to ozone and particulate matter is exactly the additional impairment that can affect my patients' ability to function independently on a day-to-day basis. The increased use of their medication, the steps up in medical management due to poor air quality, is burdensome to the patients and the caregivers.

COPD is already the leading -- the second leading cause of disability and impairment in this country, and the personal and societal impact of this is amplified by air pollution.

We educate our patients daily as far as staying indoors and limit their activities when possible on bad air days. However, children and grandchildren, soccer games, and baseball games, often override this best intention. So despite our warnings, we often see a rise in the office and emergency room visits during those days. The impact on the quality of lives, the lost productivity from work absenteeism, and missed school days, takes a toll on all of us.

So thank you for the opportunity to speak in support of what are life-changing and life-saving
cleaner gasoline and vehicle standards. As a
pulmonologist who's seen the health effects of air
pollution, I urge you to adopt these final standards
this year. Thank you.

MR. GRUNDLER: Thank you, Doctor.

Mr. Ross?

MR. ROSS: Hi. My name is Steve Ross. I
live in Fishtown right by I-95, and I work right here
in Rittenhouse. It's a round trip of about seven miles
commute today, which I take on bicycle. I ride down
Spring Garden Street, 16th Street, major streets with a
lot of traffic, especially in Center city.

This whole way through rush hour traffic, I'm
breathing all of the exhaust, all of the fumes from
some of these major streets. I can smell it. I can
feel it. I can feel the effects when I get into work.
I can be short of breath even after having a pretty
decent exercise session. This directly affects me,
especially, and everybody else that bikes throughout
the city of Philadelphia, especially the people that
bike every day to get everywhere. Like I said, it's a
seven-mile commute, but that doesn't count me going to
the store, going to friends' houses, going out to, you know, the baseball park. Anything that I do, I am breathing these fumes.

And these Tier 3 rules would reduce what I take in every day as I just get around the city. As I said, I live right on I-95. I'm pretty close to it. Throughout the summer, I live in an old home without air conditioning. I keep my windows open. Even in a couple of days, you can see a layer of soot on every window sill in my house that is built up just from all these cars and trucks going by on 95 every day.

It's a huge issue. Just looking at my window sill, I wonder every day what goes into my lungs. What's actually going in there and affecting me?

Thank you for the opportunity and definitely support Tier 3 and get that through.

MR. GRUNDLER: Thank you, sir.

Nick Rogers.

MR. ROGERS: How's it going? My name is Nick Rogers. I'm a competitive cyclist and an asthmatic who lives in Philadelphia, and I spend most of my time outdoors. I'm a strong supporter of the proposed new
1 clean gasoline standards, and hope my testimony today
2 can help the EPA go forward with its implementation.
3
4 As someone who suffers from asthma and spends
5 of my days outside, especially during the summer when
6 ozone levels are already high, I'm at a higher risk of
7 health problems caused by air pollution than some
8 others. It's especially important to me to protect my
9 health because of what I do, cycling. I spend hours
10 every day training outside on my bike, and I'm
11 constantly subjected to the poor air quality in
12 Pennsylvania.
13
14 I race my bike against other athletes who
15 take impeccable care of their health. So my lungs need
16 to be physically up to the task every weekend of pushed
17 to the limit. And when air pollution from cars and
18 light trucks causes me to suffer from lung problems, it
19 takes all the hard work that I've done, makes it
20 obsolete.
21
22 So more important, though, than my athletic
23 performance being affected by pollution from cars is
24 the serious impact the pollution has on my health.
25 Nationally, vehicles currently emit approximately 1.7
billion tons of carbon dioxide each year. These vehicles are also significant sources of air pollution, such as particulate matter, NOx, volatile organic compounds, and air toxins. The proposed standards should substantially decrease exhaust emissions of these harmful pollutants from cars and trucks.

I feel that if -- I fear that if this rule isn't adopted, my life might be one of those that could've been saved with the help of reduced pollution. My high risk for serious lung problems as an asthmatic and a cyclist makes it crucial to me that EPA tightens restrictions on cars and light trucks. Otherwise, I and people like me will cost the government and private insurance companies billions of dollars in health care costs, and cause tragedies to families burdened by the loss of a loved one because of this pollution.

Ozone burns my lungs and airways, causing them to become inflamed, reddened, and swollen. Particles lodge deep inside lungs where they threaten my breathing, my heart, and my life. Cleaning up the emissions from cars and light trucks is critically important because ozone smog causes coughing and
wheezing, triggers asthma attacks, sends people to the emergency room, and causes heart attacks and strokes, as well as premature death.

I think the EPA could actually do even more in the investment and cleaning up. Even more means that we see even greater health and economic benefits and more lives saved each year.

Thank you for giving me the opportunity to testify about this important issue to me. It's my request that the EPA please does go through with the proposed rule and protects everyone's health and air quality, especially those like myself with increased risks of health defects.

MR. GRUNDLER: Thank you very much for coming.

Ms. Boyles?

MS. BOYLES: Good afternoon. My name is Laureen Boyles. I'm a civil engineer and an environmental study planner, and a member of the Environmental Justice Leadership Forum on Climate Change. The forum is a national coalition of 35 environmental justice organizations working together to
inform State and Federal policy and advise political
and legislative action toward the development of just
policies and equitable reduction of carbon emissions in
all communities. Thank you for the opportunity to
testify on these Tier 3 standards.

The Environmental Justice Leadership Forum on
Climate Change supports those provisions of the Tier 3
standards that are consistent with the organization's
mission. I caution that the credit trading provision
designed to offer flexibility during the transition to
more efficient vehicles and cleaner fuels seems
counterintuitive to uniform national standards, thereby
uniform benefits. I propose that the success of the
Tier 2 standards are well documented and are all the
transition that we ever needed.

We casually speak of trading credits, but if
we look at the transaction closely, someone is standing
with a basket full of credits, and someone is standing
with a basket full of dis-benefits or pollution.

Because all communities deserve their share
of greenhouse gas reductions, fuel savings, energy
security, mitigation of disproportionate adverse health
impacts, economic growth, and job creation, I ask that
you consider the benefits that -- or the impact that
the trading provision has had on the Tier 2 standards
as we move forward in Tier 3.

Thank you again for this opportunity. I
applaud the work that you've done as well as the effort
that it takes to balance the protection of people, the
preservation of the planet, and the promotion of
economic prosperity. Thank you.

MR. GRUNDLER: Thank you very much.

Mr. Zerbo?

MR. ZERBO: Hello. My name is Russell Zerbo,
and I'm an asthmatic. I would like to thank the EPA
for proposing this rule and holding the hearing in an
area strongly affected by air pollution and other
environmental injustices.

I've lived in the Philadelphia area all my
life. As a young man, a doctor told me that I had
developed asthma from being exposed to chemicals used
in hair dyes and other treatments. My mother worked
part time at a hair salon, but in order to be at home
to get myself and my sister, who also has asthma for
the same reason, to and from school and maintain our
home, she built a small salon in our laundry room, and
often made me breakfast while we were waiting for
someone to get their hair rinsed out. This is why I
have asthma. This is why I'm predisposed to be more
strongly affected by air pollution.

In Philadelphia, 60 percent of our air
pollution comes from auto emissions. In my own efforts
to reduce air pollution, I do not own a car and try to
bike as much as possible. While I use my own energy
getting around the city, I have to ride side by side
with cars pumping sulfur, carbon, soot, and other
toxins into my already irritated lungs.

I thank the auto industry for supporting this
rule and acknowledging that low sulfur requirements and
regulations on evaporative emissions go hand-in-hand.
This is beyond sulfur because sulfur dioxide creates
soot and ground level ozone when it interacts with
other toxins in the air. So to just say that it's
about lowering sulfur emissions is very misleading.

I don't appreciate the gasoline industry's
implication that since previous emission standards were
so effective, we should be content with the current state of air pollution. With automotive manufacturers supporting it, there is no reason not to keep pushing the industry towards minimizing emissions.

My mother paid for my hospital bills, doctor's visits, and prescriptions with the money she made polluting my body. I'm asking the petroleum industry to absorb the one percent gallon price increase in gasoline without raising retail rates as repayment for harming Philadelphia's air quality.

I was able to receive the medical attention I required, but many others are not so fortunate and experience much hardship because their untreated asthma gets exponentially worse as gas companies are content with standards they did want in the first place. Advancements in low sulfur gasoline and more efficient engines are reason to push emission regulations further, not to lag on them.

Thank you.

MR. GRUNDLER: Thank you.

Mr. Lukens?

MR. LUKENS: Yes, thank you. My name is
David Lukens. I'm a concerned citizen testifying in support of the proposed Tier 3 rules. And I helped to found a natural food company actually that started out in Montana, and then since a lot of my work is relationship based, I could live anywhere that was affordable. I picked Philadelphia mostly because it's pedestrian friendly. It's a very walkable city.

And on my way to this hearing, I actually knocked on a -- on the window of a tour bus and told them to quit their engine idling, which is something I try to do several times a day. And I think that that's an easy and effective shift, just like adopting this rule, which really benefits all people who walk in Philadelphia and in other cities.

So thank you for your consideration.

MR. GRUNDLER: Thank you. Did the bus driver shut off his engine?

MR. LUKENS: Yes, he did. That happens in about 30 percent of the cases, immediate shut off.

MR. GRUNDLER: Thank you.

Mr. Bugg?

MR. BUGG: My name is Charlie Bugg, and I was
invited to testify by the Penn Environment. I'm a member of that organization. I'm also a low income landlord in Philadelphia. I'm a gardener, and I'm the Treasurer of the Frankfurt Garden Club, which is a neighborhood here in Philadelphia. I'm also a hiker, and an occasional sailor, and the father of a 17-year-old daughter. All these are reasons why I'm happy that the EPA is proposing this rule.

I don't have asthma. I don't have any serious problems. But the vast majority of us who don't also are affected by this and believe in it. For instance, as a landlord, two things come to me on this. As a small businessman, we look at cost benefit analysis. One cent a gallon? I mean, it's absurd that that would be a reason not to do it. The price of gasoline goes up or down five cents a week sometimes. It seems a bit crazy to me. Or even the -- although there's no resistance from the automobile agency it appears, the less than $150 to do the changes that would be needed doesn't seem very expensive for all the problems it's caused.

Many of my tenants complain of asthma, and,
of course, as the landlord I get blamed. Often they will think it's something to do with the house when probably it could be, but it's probably a lot more to do with the air. So even those of us who don't have it are affected by it.

I don't know -- I haven't heard the science so much about how much this type of pollution affects our plants that we grow. I certainly believe that it does affect them some in the long run. But certainly some of us like to be a little free and open. For instance, the raspberries that you grow are the very best just picked right off the vine and eaten right then. They kind of crush easily, and it's just wonderful to do that. Some other things, too. To have to feel like you must wash them off, it's a minor inconvenience, but it matters. Of course, hiking and sailing, we're outdoors a lot and breathe a little harder. It makes a difference to us there, too. And as a father of a 17-year-old, I'm really concerned about the long-term concerns here.

This happens to be the approximate 50th anniversary of Dr. Martin Luther King's "Letter from a
Birmingham Jail," and one of the things that I think he said, if not, somebody else similar, that if you're not part of the solution, you're part of the problem. So I feel like if we're not going forward in this, we're going to be -- end up going backwards. We'll probably end up having more vehicles on the road in spite of the good people here that ride bicycles so much. So we have to cut down the pollution per vehicle or it's going to get worse.

I know that this focus isn't primarily on global warming, but I feel like it must affect it in some level. And I just want to point out something that maybe people are not thinking about so much. This past winter, this past heating season, has felt to us a little -- especially the spring has felt to us a little cooler than sometimes, and maybe it is except for today.

However, the Enquirer, the Philadelphia Enquirer publishes every day a what they call a heating degree days. And over this past year, our heating degree days were still lower than the long-term average. The heating degree days, which covered the
time from late fall to the end of this month, as of this morning were 4,184. The long-term average was 4,420. We're at 95 percent of the long-term average. So even on a cooler than average, we think, winter, it's still warmer than the long-term average, so it does affect us.

Anybody who wants to see that type of thing, they changed it to the back page of the sports section in the Philadelphia Enquirer. I strongly support the new rules and wish they were stronger.

MR. GRUNDLER: Thank you very much.

Any questions for this panel?

[No response.]

MR. GRUNDLER: Thank you again for your engagement and your willingness to spend part of your day with us. It's very meaningful to all of us.

UNIDENTIFIED SPEAKERS: Thank you.

MR. GRUNDLER: One moment while we organize the next panel.

All right. Our next panel -- late breaking news.

MR. HART: I was told to go up front.
UNIDENTIFIED SPEAKER: He just walked in.

MR. GRUNDLER: Have a seat up front. Are you Mr. Hart?

MR. HART: Yes.

MR. GRUNDLER: Mr. Hart, Bryan Crenshaw, Joy Bergey, and Harold Jones, Thomas Huynh, Frank Schaller, And Steve Flint, come on up.

Why don't we proceed from left to right, starting with you, Mr. Crenshaw? Welcome.

DR. CRENSHAW: Hi, thank you. I am Dr. Bryan Crenshaw. I'm Associate Professor at Children's Hospital, Philadelphia, and the Perlman School of Medicine, University of Pennsylvania. I'm also a volunteer activist at the Sierra Club. But today I'm here to speak as an individual. You've heard a lot from the bike community, and I also am a member of the bike community. And as urban bike commuters, clean air -- we seem to be particularly attuned to the fact that it's important for our health and well-being.

There's nothing like biking behind a vehicle that spewing emissions from the tailpipe to elicit visceral reaction to pollution from cars and how that
raised concerns in our mind. Although clearly any car that's putting out that level of pollution is no longer in compliance with current regulations, it does make the dangers of tail pipe pollutants quite palpable. Despite the fact that most cars are, in fact, are in compliance with current regulations, there are, as we all know, bad air days, as we heard about previously, for the levels of smog are not healthy. And on these days, the cumulative impact of the smog pollution is perceptible even under the current regulations. Therefore, it's so important for these new regulations to address the major sources of air pollutants that give rise to smog, and to begin to alleviate the impact of bad urban -- or bad air days in urban environments, such as Philadelphia. Additionally, I come here speaking as a father who is raising a child in an urban environment. As you heard previously from Russell, we have impacts of raising children in urban environments, and that, of course, concerns us. Fortunately for me, my son is not an asthmatic, but I do worry about him when he's on the ball field in the summer being subjected to bad
1 pollution days. One is concerned that perhaps, you
2 know, one needs to remove him from the field. Of
3 course, that's just such a challenge. And it's for
4 this reason for our children it's so important to
5 reduce the amount of sulfur, and nitrogen oxides, and
6 volatile organic compounds our environment.
7
8 Undoubtedly, as we've heard before, there are
9 organizations that oppose these regulations, and they
10 have crass monetary interests in mind. Frankly, I
11 think these organizations should be ashamed of their
12 motivations. I mean, one cent per gallon of gas? I
13 think the health of the citizens of this country,
14 particularly our children, are worth these few pennies.
15
16 Even without the sophisticated types of cost
17 benefit analyses that went into this decision by the
18 EPA, I think that common decency and a sense of
19 stewardship for our fellow citizens would argue the
20 importance of reducing the health impacts of tailpipe
21 emissions above and beyond those that could be
22 monetized.

One has heard multiple asthmatics here at
impact of this home to us. And I think our country needs to get away from an obsession with pinching pennies, and the associated canard of the impact of regulations on jobs. We need to take care of our citizens. We need to be concerned with the well-being of our fellow men and women and children.

In summary, I strongly support these new regulations, and I think it's important to protect the health of all Americans, most importantly, our children. Thank you.

MR. GRUNDLER: Thank you so much.

Mr. Schaller, please.

MR. SCHALLER: My name is Frank Schaller, and I created the Soil Food Health Forum to educate people about food and energy pollution. My -- I want to thank specifically the Sierra Club for keeping us informed. If it wasn't for them, I would not have known about this, and they're doing very good work. My testimony covers a micro and a macro view, so even though it sounds like I'm more macro, focused on the micro connections.

Thank you very, very much for this special
opportunity to comment at this public hearing. I trust the Environmental Protection Agency will live up to its middle name and provide protection from dangerous pollutants for our children and your own children. Hopefully the influence of industrial interests will not marginalize or overshadow the efforts and concerns of people testifying for stronger regulation that will work toward eliminating pollution our home planet.

The next time you're in a bumper to bumper traffic jam for 30, 40, 50 minutes, when you arrive at your destination, go to the back of your car and wipe your finger across the back of the trunk. Look at the dirt on your finger and realize the direct, the chemical pollutants, the hormone disruptors on your finger are also in your lungs headed for your blood stream and traveling to the weakest organs in your toxic body. And we can thank the EPA for the research they've done on human toxicity. We are all toxic. Those same chemical compounds are also in every infant, child, and elderly person's lungs, blood, and compromised organs.

The Free Library of Philadelphia has a DVD,
Who Killed the Electric Car, available. No cost to watch it. Yes, this is a hearing on combustion engine pollution, but it warrants repeating that 60 to 80 percent of Americans' auto miles can be done with electric vehicles. The wind and solar industry is developing to the point of providing clean energy to support recharging the electric vehicles. Electric vehicles, cars, trucks, SUVs, can eliminate vast amounts of combustion engine pollution.

Attached are references along the lines of Ross Perot for those who remember the charts and the facts that he presents. Attached are references to support the fact that America's energy policy can and must move to clean renewable energy sources very, very soon because fossil fuels have been a pernicious disease, killing and damaging the people, the land, the atmosphere of this good earth. Tailpipe emissions are at the top of the disease causing list.

After over 100 years, we can surmise a combustion engine will never be pollution free. Remember that pollution means disease and early death. Our infants, children, and elderly are suffering
terribly. No economic considerations of fossil fuels counterbalances, the health impact, pain, sorrow, and destruction to the health of the people and our planet.

The United States Environmental Protection Agency should be applauded for its research on carcinogens, especially those coming out of the tailpipes of combustion engines: cadmium, sulfur compounds, nitrous oxide, carbons, et cetera. But please require stricter standards now while you work to eliminate the problem, fossil fuels.

And a P.S., everybody must see the 22-minute YouTube video Ten Americans from the Environmental Working Group, another good organization that has done wonderful work.

Thank you very much for this opportunity.

MR. GRUNDLER: Thank you for coming.

Ms. Bergey?

MS. BERGEY: Hi, I'm Joy Bergey, and I don't know if you got the word. I'm reading testimony for two organizations, Pennsylvania Interfaith Power and Light and Penn Future. Cricket Hunter from Pennsylvania Interfaith Power and Light could not be
here, so I'll be --

MR. GRUNDLER: Okay.

MS. BERGEY: And they're both fairly short. I hope I can do them both in close to five minutes total.

So I'll start by reading the testimony on behalf of Cricket Eccleston Hunter, who is the Executive Director of Pennsylvania Interfaith and Light, or Pennsylvania IPL.

My name is Joy Bergey, and I'm a member of Pennsylvania IPL, member congregation, Chestnut Hill United Church. Pennsylvania IPL is an affiliate of the National Interfaith Power and Light, comprised of 40 States affiliates representing 14,000 congregations. Members come together from diverse faith traditions because we share the common callings to both care for creation and to care for the most vulnerable among us.

These concerns are at the root of our deep concern about climate change. In our private and in our congregational lives, we seek to reduce our emissions as part of our faithful witness.

These new efficiency rules proposed by EPA
for light cars and trucks are expected to curb
projected greenhouse gas emissions by six billion, with
a "B," metric tons. The rules create a predictable
market to spur innovation that will reduce our impact
on the climate and will have both direct and indirect
health benefits on citizens of the U.S. and of the
world.

Now that we know the effects of our
consumption on God's creation and the most vulnerable,
we have no choice but to act morally and respond. With
these new rules, the EPA is taking the right step. The
new mileage standards create new opportunities for
individuals of faith to live their lives more fully,
whether by carpooling in a more efficient car, walking,
or riding a bike in safer, cleaner air.

As people of faith, we urge you to continue
the work with which you have been charged, to act
swiftly and decisively in defense of clean air for the
people, the country, and the planet. Thank you.

And now I'll speak as, again, Joy Bergey as
Federal Policy Director for Penn Future.

Penn Future is a statewide public interest
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philadelphia, pa

1 membership organization founded in 1998, and we have
2 offices across the state. so, first, thank you for
3 coming to philadelphia. welcome back. we love to have
4 you here. and penn future supports the proposed tier 3
5 standard and thanks you, the epa, and the obama
6 administration for proposing this rule.

7 the standard, if implemented as proposed,
8 would improve air quality and public health. it would
9 reduce smog forming nitrogen oxides and volatile
10 organic compounds by 80 percent. vehicles would emit
11 70 percent less particulate matter and 40 percent less
12 of the toxic benzine. the rule would reduce asthma
13 attacks, respiratory problems, and premature deaths
14 caused by smog forming emissions. this is especially
15 important to residents here in philadelphia and in
16 pittsburgh where air in both cities is way too dirty by
17 many federal standards.

18 according to epa's own calculations, by 2030,
19 the proposed standard would prevent up to 2,400
20 premature deaths, 23,000 cases of respiratory ailments
21 in children, 3,200 hospital admissions and asthma-
22 related er visits, and 1.8 million lost school days,
work days, and days when activities would be restricted due to air pollution, all of this each and every year.

EPA also estimates that by 2030, these public health benefits would result in avoiding costs between $8 and $23 billion annually.

At Penn Future, our tagline is that every environmental victory grows the economy. So this proposed rule would improve air quality, benefit public health, and save at least $8 billion annually. What's not to love about this new standard?

But the economic news gets even better. A study by Navigant Economics estimates that the Tier 3 rule would create almost 5,300 permanent jobs in the operation and maintenance of new refining equipment, as well as 24,000 new jobs over the three-year period to install the new equipment at refineries. In addition, Tier 3 will drive the advances in emissions control technology developed here in the U.S. and exported globally.

Penn Future is loving this proposed rule more and more, and we're not alone. The standards have broad support from science, environmental, and health
organization, UAW, consumer groups, the Manufacturers
of Emission Control Technology, and many auto makers.
So Penn Future encourages EPA to adopt this
Tier 3 standard promptly as proposed without being
weakened. Thank you very much.
MR. GRUNDLER: Thank you so much.
Mr. Huynh?
MR. HUYNH: Good afternoon. My name is
Thomas Huynh. I'm the Director for the City of
Philadelphia Department of Public Health Air Management
Services.
First, I would to thank the United States EPA
for holding public hearing on the proposed rule of air
pollution from motor vehicle. Air Management Services,
AMS, is the local air pollution control agency for the
City of Philadelphia. Our mission is to protect the
health and quality of life for the Philadelphia from
adverse effect of air quality. It operates under the
authority of the Philadelphia, Pennsylvania Air
Pollution Control and the Clean Air Act.
AMS strongly support Tier 3 proposal to
reduce emission from passenger car and light truck by
lowering the sulfur in gasoline. The Tier 3 would reduce nitrogen oxide, volatile organic compound, emission by eight and three percent by 2017, by 2030 by 28 and 23 percent, respectively. The approximate emission of benzine and total air emissions would be reduced by four and three percent by 2017, and 36 and 23 percent by 2030. These reductions will significantly improve to help benefit Philadelphian, and as well help us to meet the National Ambient Air Quality Standards. Currently, Philadelphia meets all the standards except for ozone and particulate matter, five particulate matter. In 2012, we had 21 days that we do not meet the National Ambient Air Quality Standards. The current level ozones mostly were created by nitrogen oxides and volatile organic compound from the automobile, and 22 percent of children of Philadelphians have asthma. This is the rate that -- the output rate of the national average. And most the emissions created near the roadway, and most Philadelphiaan people live within 76 meter from the roadway, would be impacted by the automobile results.
So in summary, I would like to have the rule be adopted as quickly as possible because the standards are consistent with California and other European countries already have. We do hope with the rule we’re able to meet the air quality standard. We also are able to reduce the air toxic emissions. Right now we have eight air toxic compounds that consist more than one in a million risk due to the high sulfur in gasoline.

Thank you for the opportunity to support the proposed rule, and we remain committed to protect the health and well-being of the people in Philadelphia. Thank you.

MR. GRUNDLER: Thank you, sir.

Steve?

MR. FLINT: Thanks. Good afternoon. My name is Steve Flint. I'm the Assistant Director for the Division of Air Resources for the New York State Department of Environmental Conservation. I want to thank EPA for the opportunity to testify on behalf of New York State regarding the proposed Tier 3 motor vehicle emissions and fuel standards. And up front,
New York fully supports the option of the proposed Tier 3 standards, and we're particularly interested in the proposed gasoline -- yeah, sorry about that -- the gasoline sulfur standard.

New York has historically for a long time now had in place the California motor vehicle emissions standards in order to help us meet our air quality objectives. We most recently adopted the California Advanced Clean Cars Program in 2012 to help us achieve and maintain reductions for criteria pollutants and greenhouse gas. That's the California LEV III program.

The proposed Tier 3 standards will harmonize the national standards with those more stringent technologies, forcing standards that have been the hallmark of the California program over the last 20 years now. New York is confronted with serious air quality problems associated with transported air pollution, and implementation of the Tier 3 standards nationwide will have a positive impact on the reduction of transported emissions from upwind States that negatively affect New York. These upwind controls will lead to a more equitable distribution of controlled
And just to point out that metropolitan New York is in non-attainment for the 2008 ozone standard, and we have, in fact, based on actual monitored data requested a bump up of that non-attainment status to moderate.

Adoption of the national Tier 3 standards will harmonize the Federal and California standards, thereby reducing compliance burdens on vehicle manufacturers, enabling them to build vehicles to a single national standard.

In New York, we've implemented pretty much everything we can implement as far as controls on stationary sources. Incoming air quality is a very big deal to us in New York, and Tier 3 is a critical part of that.

We also fully support adoption of the proposed standards regulating the sulfur content of gasoline. When we adopted the California motor vehicle emissions standards in 1990, the Clean Air Act pretty much hinders New York and other States from adopting the California fuel standards. I won't say it's
impossible, but it is a high hurdle.

The proposed gasoline sulfur limited of 10 parts per million is widely accepted, developed around the developed world. It's currently the standard in the EU, Japan, South Korea, and in California, and China is even moving forward with the 10-part per million sulfur standard.

The engine exhaust after treatment fuel needs to be treated as a system, as EPA has recognized and done with the Tier 3 and now the Tier 3 standards and heavy duty standards as well. And we fully support the proposal here to regulate the system again. Reduction in the sulfur content of gasoline facilitates improvements in engine and exhaust after treatment signs that can further reduce emissions of ozone precursors, as well as reductions in greenhouse gas emissions improvements in fuel economy as other technology is enabled.

Sulfur is well-known poison catalysts that are vital for meeting existing and proposed standards. There's been concern expressed about this for many years now, and Tier 3 made a lot of progress in
reducing standards that -- sulfur standards, and now it's time to go the next step and bring it down even further.

While the emissions benefits associated with the Tier 3 standards won't fully accrue until the fleet turnover, the environmental benefits from gasoline sulfur reductions will also improve the effectiveness of millions of catalytic converters already in the field. We know that some of the effects of sulfur on catalysts is reversible, so as soon as it goes into effect, we get benefits. Your documents suggest 284,000 tons of NOx nationally in 2017. That's probably in the order of 10,000 tons of NOx for New York.

And to illustrate some of that impact, I looked at data -- INM data for 2012 in New York, and we had 17,000 vehicles fail initial INM tests for catalytic converter. And we don't know how many might've been repaired before they were tested, so we know that sulfur improvements would reduce that catalyst impact, and, therefore, not only save some money for the owners for catalyst repairs, but also
give us environmental benefits.

Finally, just -- I'm out of time, but just to say as far as cert fuel, I've personally been harping on EPA for a long time to make cert fuel look more like fuel in use, so thanks.

Again, we fully support these standards, and we'll be providing some more detailed written comments to the docket.

MR. GRUNDLER: Thanks, Steve. The cert fuel provision is known as the Flint provision.

Mr. Hart?

MR. HART: I'm sorry that I didn't turn the microphone to my gentleman to my right. I'm a Quaker, and you'll -- if you haven't heard from Hollister Knowlton, she will be speaking, I believe. I don't represent the Society of Friends. I am a Quaker.

On the way from here to lunch, I was walking rapidly, and I made the typical pedestrian's mistake of running across a very wide street. Well, I'm old enough to half collapse. My leg gave out, and six -- five lanes of traffic was headed towards me. I recovered and ran, so I was saved.
I think back to when I was taking my son, who's now 37 years old, running a non-profit for children. When I was walking him, we took public transit to get to his daycare. I would walk across JFK Boulevard carrying his lunchbox, and the traffic turning that corner, the very place where I stumbled going out that direction, drives five cars wide at anything. And one particular day, a car aimed directly for us, and I was frozen. I didn't know what to do. The car swerved around me and my child. I threw his lunchbox at the car.

Now, coming here back from lunch, I got up to Market Street, and looked down across the street and saw a kid walk into the street, 10-year-old at most, and a bus came within one and a half feet of this child. Everybody on the street screamed.

Now, I'm way off target here. I heard this morning things that were way beyond me. If you look at the hole in my head, it's not because I'm an idiot, but because I was exposed in high school to concentrated hydrochloric acid. The teacher didn't tell me don't get into that bottle. I sniffed it. Now many medical
procedures and surgeries later, I'm an epileptic. I have some cognitive difficulties.

Going back to that boy in the street, everybody screamed, and I was in tears. Cars, I don't -- my wife takes me places. I can't drive, thank heavens. I'm a little scattered because of this brain problem. Finish up if I can real quick.

Regulation is necessary, but regulation is used by industry. We saw all the industry people earlier, and they were overwhelming. I couldn't understand them. But I knew that something was going on there with the dots and the dashes and the small print. Regulation is a tool that the polluters use.

Now, I respect the Environmental Protection Agency. Believe me, it's in gold letters. You've done a lot of good work, but why should it be so much work?

The pressure should be on the polluters and the killers of this planet. By the way, I'm also an adult who acquired asthma. I see the trees in my backyard disappearing, shrubs, azaleas that were 10, 12, 15 feet long are dying. And, oh, flowers are appearing that I've never seen, a wonderful thing, bad
thing. This is a crazy era we're living in.

And I really -- I'm going to finish up in just 30 seconds. I really appreciate your work because you are attending to a lot of difficult material. I respect your intelligence and what you know, and I hope you do well. But -- well, you've heard it. You know what I mean. Thank you very much.

MR. GRUNDLER: Thank you so much for coming, Mr. Hart.

Mr. Butera?

MR. BUTERA: Yes, good afternoon. My name is Jay Butera, and I'm speaking to you today from a personal standpoint as a father of four children and a very concerned citizen. I hope you have this handout that I dropped off to you.

I wanted to speak just a little bit about my perspective on pollution, pollution of air and pollution of water. And I understand that the ruling that we're discussing today advances us toward cleaner air or less emissions, you know, by significant percentage points. I have -- and I think that's wonderful, desperately needed. But I have some --
perhaps a slightly different perspective on pollution
that I've developed over the last 50 years.

I myself cannot understand why we need to
pollute at all. And I know that sounds unrealistic,
but I'm going to explain some things that I think are
very realistic. Why as a species with all the
technology that we have do we permit ourselves to foul
our water and foul our air? Why do we permit ourselves
to use the atmosphere as a dumping ground for air toxic
waste when we don't have to? And I'm here to tell you
today that right now we don't have to. That's my
perspective on pollution. And I think that we've
become hardened to the fact that it's necessary. It
really is not, and we can do better.

Now, on the handout that I gave you, I'm
showing you a fleet of cars which I think is compliant
with your rule. This fleet is in my driveway right
now. These are my family cars. And I wanted to tell
you that we've been driving a cleaner fleet of cars for
a decade now. It's been no hardship on us. It's been
nothing but savings of money, reliable transportation,
and just a wonderful way to move ourselves around.
So on the front page, I show you our two vehicles. One is a 10-year old Toyota Prius Hybrid, which now has 165,000 miles on it. I showed you a photograph of the odometer from this morning. That's our old technology. Our new technology, which we've had for about six months, is the 100 percent electric Nissan Leaf on the left side of the page. That has no gas tank, has no emissions whatsoever.

First, I'll just talk about the Prius for a minute. By my estimates, over the 165,000 miles that we've driven that, we have saved, as I did the math for you there on the handout, 4,800 gallons of gasoline compared to the car that I traded in to get that Prius 10 years ago, November 2003. At $4 a gallon, that's $19,000 of money saved. So when I see people raising red flags that this might raise your rulings, might raise the cost of fuel by a penny or a dime per gallon, I say where do I sign up, because the efficiencies that your various ruling on this topic are promoting will definitely save money.

If you turn to the second page, I'm going to tell you how realistic emissions free transportation
is. This is my equation for transportation right now for all of our local driving. I drive a 100 percent electric car. I have solar panels on my roof, which charges the car. So basically we're taking the sunlight and bottling it into the car and driving on it. Zero emissions, zero fossil fuels. If you don't have solar panels, you can plug an electric car into -- you can select your electricity supplier to be any one of the number of clean green energy suppliers that we have in this area and drive your car on green energy.

So all of the standards you're setting are attainable with off the shelf technology of today, and I would encourage you to adopt the ruling, make it stick, and then let's move on for cleaner and cleaner and cleaner cars until we get to zero. That's my goal.

Thank you very much.

UNIDENTIFIED SPEAKER: That's good.

MR. GRUNDLER: Thank you. That was very interesting testimony.

Any questions for the panel?

MS. SARGEANT: I do. Thank you for everyone who testified. It was all very interesting.
I did have one specific follow-up question for Steve Flint from New York. You talked about the non-attainment challenges. I was wondering if you could speak a little bit to the timing and the magnitude of the emission reductions and air quality improvements that come from Tier 3 as it relates to your situation in New York.

MR. FLINT: Well, again, Tier 3 for New York by itself -- Tier 3 by itself doesn't do all that much for us because we have the California program, and, in fact, New Jersey has the California program as well. But we will certainly see the transport benefits associated with it as we get improvement in air quality upwind from Tier 3.

The real big bite occurs with the fuel sulfur benefit that allows us to get immediate improvement and, you know, just doing a little pro rata of EPA's numbers, it looks like 10,000 tons of NOx for New York. So, yeah, we can use that.

Our issues are we're -- we are non-attainment based on current monitoring data, based on 2012 data. We're still non-attainment. In fact, 2012 made us
worse because it got rid of a cool summer. So when we
look at our current non-attainment status and the fact
that we've requested a bump up to moderate. We need to
get the reductions to get into attainment in the 2018
time frame, which would be required. 2015 looks
virtually impossible.

MS. SARGEANT: Thank you.

MR. GRUNDLER: Steve, what kind of choices
would the State be facing in the absence of this rule
going final? In other words, if you didn't get those
tons through the cleaner gasoline and the incremental
benefit that cleaner gasoline provides for the Tier 3
California vehicles that are on sale now? How would
you --

MR. FLINT: Frankly, we're scrambling in that
regard. We're looking at really every emission source
that's out there. We are -- you know, we've had a lot
of conversation with the Agency about transport issues
and, you know, interstate transport on a large scale
with, you know, the loss of the two cross-state air
pollution rule and then its predecessor.

So we're certainly looking at upwind
reductions as necessary. We would have to have -- I think we've done some modeling someplace. We're looking at 70 or 80 percent reduction in our own NOx and still not being able to get there. We've already got everything done pretty much we can do.

MR. GRUNDLER: Mr. Huynh, I see you nodding your head as well. Would this make your job that much more difficult in the absence of this -- these standards?

MR. HUYNH: If the EPA not pass, we're not really sure the money that we ask the local in Philadelphia would be tremendous more than .89 cent per gallon people going to pay. You know, we participate into the CSAPR Supreme Court challenge because we're not really sure -- we were banking on CSAPR. Now CSAPR is -- whenever it be, it will be. But without Tier 3, the notion that we are able to meet the 2008 ozone standards, and I understand by the end of this year that standard going to be lower. So we're not really sure whenever we would meet the national air quality standards so people in Philadelphia can enjoy the good air quality.
MR. GRUNDLER: Thank you very much. Thank you again, panel, particularly the citizens who are taking time out of their day to engage in the process. It's very, very meaningful to all of us.

We're going to take a short break right now. And we have one more panel. If there are any people in the audience who wish to provide some testimony, please see our folks out in the hall and sign up, and we'll reconvene in about five minutes.

[Whereupon, the meeting was recessed briefly at 4:09 p.m., to reconvene at 4:25 p.m.]

MR. GRUNDLER: I'd like to invite the next panelists up: Rebecca Jacoby, Eric Cheung -- did I get that right -- Sarah Noonan-Ngwane -- excuse me, Ngwane -- beautiful name -- Rosa Michnya is already at her seat.

IDENTIFIED SPEAKER: You're fine.

MR. GRUNDLER: You're fine. Welcome. We'll move left to right again, or your right to left, starting with you, Ms. Michnya. Feel free to proceed.

MS. MICHNYA: So my computer was down, and I
had to handwrite this, I imagine. And I'm not a doctor, but after trying to recopy it on the train, it sure looks like it. But I'll do my best here, if you'll bear with me.

MR. GRUNDLER: No worries.

MS. MICHNYA: Okay. I'm Rosa Michnya testifying as a citizen. Thanks so much for coming yet again to my hometown. As I say every year, we need you to return again soon to talk about Marcella Shale.

You're in such a great position today, aren't you, to do so much for so many with this proposed rule. And congratulations to each of you for achieving that.

I once called the EPA years ago to ask where in the Philadelphia area I could move in order to have cleaner air, and I was told you can't. It's all one big smear. That's an exact quote.

Since then I know there have been many improvements, but I'm still one of more than 30 percent of Americans, I believe, living where at least one Federal air quality standard is exceeded, in my case, more than one.

But I'd like to talk instead today on behalf
of the kindergarten class I volunteer at once a week here. If I ask them tomorrow if they think we should all have cleaner air through cleaner gas and cleaner cars, I know all 30 of them would instantly raise their hands, and they've got nothing against dirt, that's for sure, or against cars. In fact, they tend to love cars, and trucks, and motorcycles.

When we wrote letters to Obama recently, one of them asked the President to bring him a race car next Christmas. And now that they've mastered the alphabet, it's a good time to teach them what the letters "EPA" can stand for. And they'll also be delighted to hear that today we're talking about rules for grownups for a change. They hear a lot about rules obviously for good reason. We want them to grow up and continue to be the good citizens they are today, and this is a rule to encourage grownups to do the same.

Nearly 95 percent of the children attending the school live below the poverty line. And what I see each week, say what you will about public schools. I've said it myself. I went to them. But what I see each week are a lot of people working very hard to give
them a good education so that they can escape that one day. And asthma attacks are very unwelcome interruptions to all that.

In fact, the child who would've been with me today with his own rainbow colored name card, for him would've been just like show and tell. He would have shown you his asthma equipment and told you how he feels when he needs to use it, has missed the last two days at school because of it, and is at the doctor's office this very afternoon because of it, according to his grandmother. She's the person raising him, and she also wishes she could be here today because she herself has heart disease and quite a long and scary hospitalization last year.

She's the one Joshua calls mom and the most important person his six-year-old world. And without her, he would very likely be in foster care. He's also the one who asked Obama for a race car, by the way, and when I myself gave him one of those little Hot Wheel cars for his birthday, he said, won't mom be proud to see a hot car.

The cars I see in the neighborhood around his
school don't tend to be electric cars or even hybrids, but older, larger cars. So obviously you can't do much about little Jamad's night in a homeless shelter recently, or Nagir's grief over his father who was shot, or how much Tamir is going to miss his little brother, as he recently told me, when his family splits up and has to live with relatives. You know, these kids are in kindergarten, and already they have a lot on their plate. And I certainly don't mean the school lunch.

But clearly what you can do is help kids like Joshua breathe easier and miss less school, and you can help people like Josh's grandmother live longer, healthier lives so they can be there for these children when they need them the most. So just know that there are a lot of us -- young, old, and in between -- who support you in every way in making the right decision on this rule.

Thank you.

MR. GRUNDLER: Thank you so much for coming.

Mr. Cheung?

MR. CHEUNG: Thank you. Hi. My name is Eric
Cheung, and I reside in South Philadelphia. I was born almost 40 years ago, a few years after the Clean Air Act of 1970 was passed and the U.S. EPA was formed to oversee its implementation. You know, it's funny because I can actually track changes in my life and my own personal contribution to air pollution with the evolution of vehicle emission regulations under the Modern Clean Air Act.

During the 70s and 80s, when I was growing up in the suburbs of Philadelphia, my family's car took me and my family everywhere: errands, shopping, eating out, having fun. We racked up the mileage just like every other suburban, middle income family I knew. I was oblivious to the effects on the environment and air pollution my lifestyle was having. The Clean Air Act, however, took some major steps toward cleaning up car emissions by requiring the use of catalytic converters and setting up inspection and maintenance programs to ensure vehicles complied with emission standards.

During the 90s, I had my own car and commuted to college from my family's home. This is a period when I did the most driving of my life: to school, to
work during the summers, and to hang out with friends who were scattered throughout the region. As a result of what I learned from my education, I had become an environmentalist and was much more aware of the impact my actions had.

Unfortunately, living, working, and recreating in the suburbs left me little choice but to drive. Meanwhile, EPA implemented Tier 1 vehicle standards under the Clean Air Act, which made vehicle engines comply with stricter standards. Tier 1 laid the ground work for cleaner cars to come through its system of multiple emission categories that auto manufacturers had to design their engines to meet.

In the 2000s I graduated from law school and was living in the suburbs but working in the city. I commuted using public transportation, and as more and more of my life became focused on the city, I became less reliant on my car. I basically only drove on the weekends. It was around this time that Tier 2 standards under the Clean Air Act started to kick in, forcing auto manufacturers to have more of the vehicles they made meet increasingly cleaner emission
requirements.

And now here we are today in 2013 talking about Tier 3 standards. And at this point I my life, I have a house in the city, I do not own a car, and I rely completely on public transit, biking, walking, and maybe an occasional ride from a friend to work, to shop, to eat out, and to have fun. I almost never drive in a vehicle alone. My personal contribution to air pollution is the lowest it has ever been. And once, I can see the Clean Air Act is looking to improve as well. With the Tier 3 rules EPA is proposing, the result will be the cleanest-burning cars yet.

The Clean Air Act has always been there for me, acting to protect my health from the impact of vehicle emissions even as I was coming to terms with my own -- with my being a part of the problem. And, thus, I feel a need to return the favor and voice my support for EPA and the Clean Air Act with its proposed Tier 3 rules. Thank you so much for the job you have been doing all my life to ensure the air I breathe is safe. And now I can stand with you and say I have done my part, too, by cleaning up my own personal
vehicle emissions.

And I leave you with a promise: you keep on doing everything you can do to reduce air pollution, and I will do the same through the choices I make in my life. Please implement Tier 3 rules, and please keep finding new ways to improve vehicle emission standards.

Thank you.

MR. GRUNDLER: Thank you.

Ms. Ngwane?

MS. NOONAN-NGWANE: My name is Sarah Noonan-Ngwane, and I speak today on behalf of the Center for the Celebration of Creation. The Center is a project of Chester Hill United Church, which has been working on issues of environmental justice since 1989. We are in strong support of this proposed Tier 3 rule and thank the EPA and President Obama for their leadership on this.

It's painful to realize that more than half of all Americans still live in areas where the air poses significant health risks, and much of that dangerous air pollution comes from cars and trucks. Many of these don't even have cars.
Citizens in the government have spent too much money treating these diseases that result from tailpipe pollution. All of these health problems mean missed days of work for adults. This hurts their wallets and the larger economy. The children and youth sickened by this tailpipe pollution miss school, and that hurts our future. None of this is fair.

That's why there is such a great need for this new regulation. The proposed rule would prevent up to 2,4000 premature deaths, 3,200 hospital admissions, and 22,000 asthma attacks each year. Nevertheless, our country could be doing so much more to move our economy away from these filthy fuels that'll make us ill and are heating up the planet in dangerous ways.

This is a very personal issue for me. My sister and I are both -- suffer from asthma, and five years ago she was hospitalized because of a severe asthma attack, and it was extremely scary for all of us. Along with 12 other people from our church, I went to Washington, D.C. on February 17th to protest the proposed Keystone XL pipeline, and to call on our
government to stop this lunacy of supporting fossil fuels.

Although the Center for Celebration of Creation supports this proposed Tier 3 rule, we view this as a small first step to the real solution: moving towards a clean energy economy built on renewable fuels and energy efficiency. The answer to this is no more fossil fuels.

I'm 16 years old, and I want there to be a stable climate and clean air when I'm 26 years old, 36 years old, 96 years old. But there won't be if we don't change course soon.

I thank the EPA for coming to Philadelphia today to hear our testimonies. Thank you for doing what you've done so far, but please know that we have so much further to go.

Thank you.

MR. GRUNDLER: Thank you for coming.

Ms. Jacoby?

MS. JACOBY: Hi. My name is Rebecca Jacoby. I have lived in a Philadelphia inner city neighborhood since 2005. Since that time, my neighborhood and those
adjacent to my neighborhood have undergone rapid
development. In my neighborhood, which is called South
Kensington, which is just north of Northern Liberties,
I've witnessed an unprecedented amount of development,
stores and businesses, but primarily new homes, are
being built constantly on every block. In Northern
Liberties, every square inch of free space is being
built upon.

The building has now crept north to South
Kensington where I live. Two blocks from me, one open
green space was just turned into a parking lot. Other
green spaces are targeted for more living space. With
this development come more people and, therefore, more
cars. The air is already noticeably less clear in only
six years since I've been there.

With building machinery on literally every
single block, first clearing trees and land, and then
sitting for weeks and months with engines running in
front of people's homes, the exhaust from tailpipes can
be suffocating. Although the building crews and their
equipment will leave eventually, the damage lingers.

Soon the newly-built 30 or 50 or 100 new condo units
will bring families, adding their cars to the streets of Philadelphia.

Cleaner standards for the trucks sitting at this very moment on the streets of my neighborhood and those adjacent to mine will bring needed relief from toxic emissions these trucks produce. They are more likely to be kept running all day, and what they are spewing lasts for a long time.

The thousands of cars that will be added to the streets of my neighborhood will also be admitting toxins that reach kids playing in the streets, the elderly, and people trying to work outside in community gardens, exercising, or sitting on their stoops, a Philadelphia tradition in the warm months.

People in the inner city can often not afford central air, central cooling systems, myself included. They open their windows in the spring and summer. Open windows let in all the toxins from cars and building machinery that people in better neighborhoods who have central air and can close their windows can avoid.

Also of concern in my neighborhood and ones
like it, in every inner city are the ice cream trucks
that slowly cruise the streets an hour at a time.
Right now, the weather has been quite cool, yet the ice
cream trucks are already out. While the ice cream
truck is one of summer's pleasures, the amount of
exhaust one can spew as it sits running for half an
hour in front of my home and the homes of others is
stultifying. If an ice cream trucks parks in front of
my house during a 95-degree day when I have my windows
open, I have to close them also that my home will not
fill with toxic exhaust from one of these trucks. I
would rather close all the windows than have my home
fill up with exhaust.

If these trucks and those like them as well
as passenger cars can be positively affected by new
standards that need to be enacted by the EPA, there is
no question that the quality of living and breathing in
the inner city will increase.

There's no down side to making the air
cleaner in the inner cities across the United States,
which already suffer from a wealth of other ongoing
economic, education, and environmental issues. And
1 passing clean tailpipe standards will help.
2
3 Thank you.
4
5 MR. GRUNDLER: Thank you so much.
6
7 Mr. Polites, is it?
8
9 MR. POLITES: Polites.
10
11 Mr. GRUNDLER: Polites.
12
13 MR. POLITES: I'm Frank Polites, and I want
14
to thank the EPA for giving me the opportunity of
15 speaking out, testifying.
16
17 I'm a 66-year-old veteran. On my discharge
18 in '69, I went to community college and began my
19 education. I can recall the first Earth Day, and we
20 did something that was very appropriate. We buried a
21 car. I thought maybe that would catch on, but
22 apparently --
23
24 [Laughter.]
25
26 MR. POLITES: On the walk from my train
27 station, I noticed there's more vehicles out here than
28 ever. And as an asthma individual, a person afflicted
29 with asthma, I'm very concerned about my health and
30 about the health of the millions of other people,
31 elderly people, who have developed this terrible
disease.
2 And this new Tier 3 is very exciting. If we
3 can cut down over 3,000 hospital admissions and save
4 2,000 lives, and in my case there's an estimate --
5 people who do these statistics say that we can stop
6 maybe 22,000 asthma attacks. I'm excited about that.
7 So I hope that you do consider these new
8 standards. They're more reasonable. They're more
9 than, you know, efficient, and effective, and
10 affordable. As an elderly person, I'm not wealthy, but
11 I can kick in, you know, a penny in the, you know, a
12 hundred dollars per vehicle, whatever. I can make a
13 contribution to support this effort.
14 So good luck, and I hope you're successful in
15 passing these new standards. Thank you very much.
16 MR. GRUNDLER: Thank you for coming.
17 Now we're going to hear from Mr. Winters.
18 Welcome.
19 MR. WINTERS: Thank you. Well, I'd like to
20 preface my remarks first since we're talking about our
21 age and everything. I'm a 70-year-old grandfather with
22 seven grandkids, and three of them are the first
children or the first people in my family to ever have asthma. So the situation is getting worse, not better, in spite of the fact that I've been testifying before Congress and EPA since 70s passage of the Clean Air Act. And we've gotten rid of the obvious pollution you can taste and see, but it's the stuff you can't see and the particulates that are smaller now than we ever conceived of back in 1970 that are really causing a great deal of damage.

So it's a really relevant issue to me personally. I'm in fine health and do not have respiratory problems, but a lot of people my age do. And I kind of speak feel like I got to speak on their behalf, too.

My name is Dennis Winters. I am the Conservation Chair of the Sierra Club's Southeastern Pennsylvania Group. While the national Sierra Club has made its position well known regarding the proposed Tier 3 tailpipe standards, our 9,300 members here in the Philadelphia metropolitan area wish to express our support for these critical public health standards as well.
The air quality of the Philadelphia area remains among the country's worst. Pollution, largely due to the operation of motor vehicles in the region, continues to have serious health impacts on our seniors, children, and those suffering from already compromised respiratory systems.

The recent study by Navigant Economics lists annual health benefits of $5 to $6 billion, rising to $10 to $11 billion by 2030. In addition, Navigant predicts the creation of over 5,000 high-paying permanent jobs in refineries, as well as 24,000 new jobs over three years installing new refinery equipment. Yet all these real benefits are the result of spending an additional penny per gallon at the refinery. In recent times, rumors of bad weather have had more influence on the cost of fuel.

In terms of air quality, Tier 3 tailpipe standards are predicted to reduce car and truck emissions of NOx, carbon monoxide, and VOCs by 29, 38, and 26 percent, respectively, over the next 17 years. By extending the life of catalytic converters, the standards can cut NOx from existing vehicles by more
than 260,000 tons, the equivalent of taking over 30
million cars off the road. So we're not burying them,
but maybe we can get them off the road.

According to the Delaware Valley Regional
Planning Agency, the area MPO, conformity with the
State implementation plan is only being achieved
through the continuing improvements in vehicle-related
pollution controls. Now we can assist the
manufacturers of the nation's vehicles and advance
clean air efforts by adopting these standards and clean
up fuel at the refinery.

Thank you for this opportunity to receive our
support for the proposed standards, and hopefully we
can look forward to a future with cleaner air.

MR. GRUNDLER: Thank you very much, Mr.
Winters, and all of you for taking the time to share
your stories. This has been very interesting.

I'd note to Ms. Jacoby that you're the second
person that has mentioned these ice cream trucks in the
city.

MS. JACOBY: Yeah, I heard that, too. It's
funny.
MR. GRUNDLER: I would hope that in America we don't have to choose between ice cream and clean air.

[Laughter.]

MS. JACOBY: I know. I feel badly, you know, putting down ice cream trucks, you know. It was one of my favorite things to chase after the ice cream trucks, too, but they're -- I hope that they can be affected by these new standards because they really are a scourge on the inner city.

MR. GRUNDLER: I was also struck by the story about the kindergarten -- kindergarten or third grade? Kindergarten class, and Mr. Cheung's tracing the Clean Air Act history with his own life. And thanks to Sarah for having the courage to come and speak publicly and so eloquently. Thank you.

Let me ask the panel if we have any questions, further questions.

[No response.]

MR. GRUNDLER: Thank you again.

UNIDENTIFIED SPEAKERS: Thank you.

MR. GRUNDLER: For the audience, we're going
to take a break.

[Applause.]

MR. GRUNDLER: We do have other people scheduled to present testimony later today, and so we're going to take a break and wait for them to arrive.

[Whereupon, the meeting was recessed briefly at 4:45 p.m., to reconvene at 5:15 p.m.]

MR. GRUNDLER: We are ready to proceed.

Ms. Knowlton, why don't you begin?

MS. KNOWLTON: I'd be glad to. Thank you all for coming and sitting through all of this for us.

MR. GRUNDLER: Not at all. It's our pleasure.

MS. KNOWLTON: It's a really wonderful opportunity.

So my name is Hollister Knowlton. I'm a member the Religious Society of Friends, Quakers, and I also serve as Clerk of the Seven Quaker Congregations in Philadelphia, and as a member of its Eco-Justice Working Group. I'm also a representative to the National Council of Churches Eco-Justice Working Group.
I am grateful to President Obama and the EPA for the considerable work it's already done toward advancing our country's environmental quality, especially in the face of a relatively hostile Congress. "Relatively" is probably softer than is true. Specifically, I'm here to register my strong support for this proposed ruling and urge that it be neither weakened nor delayed.

I am pleased to hear that the auto industry supports this ruling, and disappointed, but not surprised that the oil industry does not.

In a Nation that uses a staggering volume of fossil fuels, a level that cannot and should not be sustained if we hope to have a viable biosphere for future generations, it is critical that the combustion of those fuels be at least as "clean," quote, unquote, as possible. Unfortunately, even cleanly burned gasoline results in the emission of carbon dioxide.

Quakers take seriously the stewardship of this precious planet. Further, our faith calls us to share earth's resources equitably and to live simply so that others may simply live.
Climate change is already underway, and our Nation's addiction to fossil fuels must end in order to avoid its most catastrophic impacts. We cannot continue with business as usual, and clean, renewable energy sources must be the answer for our future, even though I know that's not the subject of today's hearing.

Thank you for this opportunity to speak.

MR. GRUNDLER: And thank you for coming.

Ms. Sarfaty?

DR. SARFATY: Thank you. I also would like to thank the panelists for putting in a long day and for coming all the way to Philadelphia to hear our views on this very important area of regulation.

My name is Mona Sarfaty. I'm a primary care physician and Associate Professor of Family and Community Medicine at Thomas Jefferson University. I'm also immediate past president of the Medical Care Section of the American Public Health Association, and a cleric of the Prevention and Public Health Section of the College of Physicians of Philadelphia, which is actually the oldest medical society in the United
I'm speaking today as an individual health professional and public health professional, not on behalf of my academic institution. And I teach both medicine and public health students and serve as a part of the quality team in my Department of Family Medicine, where we diligently work to improve health care so that the residents of the city who come to us for their care achieve the best possible outcomes.

The logic of this presentation is going to come both from public health and individual health.

The public's health is adversely affected in many places in Pennsylvania today because of poor air quality. Based on data monitoring carried out by the EPA and made available by the American Lung Association, the population at risk because of poor air quality in our State is substantial.

The citizens of many Pennsylvania counties are affected. In Philadelphia today, vehicle emissions are the largest single contributor to poor air quality. Air pollutants that are commonly associated with vehicle emissions include the volatile organic
compounds, nitrogen oxides, particulate matter, sulfur dioxide. And under the influence of heat and light, some of these compounds are converted to ozone. While some emissions, like hydrocarbons, can be detected by smell, and some, like those that form smog, can be detected by sight, all of these emissions have negative implications for human health. Some, like particulate matter or ozone, are invisible until they reach a certain level, and may be even more damaging for that reason. Those of us who work downtown do think about this and are concerned for our own health as well as that of the citizens who live here all the time.

The EPA's proposed Tier 3 rules have the potential to protect the air we breathe from all the harmful components of vehicle emissions because the rules will improve the function of the automobile catalytic pollution control systems. If these rules had been in effect years ago, many city dwellers would be benefitting right now from better health, and perhaps health expenditures would be less.

Philadelphia is a non-attainment area for
ozone and has poor grades for particulate matter. While everyone is potentially affected, the people that are most at risk from these pollutants are those who have underlying medical conditions. It turns out that in Pennsylvania and Philadelphia especially that's not a small number.

At many schools in Philadelphia, 20 percent of the children have asthma. This is two to three times the national average, and originates in poor air quality.

In our family practice at Jefferson, we have 978 individuals who have asthma. The human misery that's caused by this condition and the societal costs that accrues to treat it are real and unnecessary to a significant degree. It undermines the effort of all the medical institutions in the city, of which there are many, when the local air quality report card shows poor grades.

A colleague of mine participated in an asthma project in Philadelphia called Allies Against Asthma. The project was a collaboration involving Jefferson's physicians, local hospitals, and grade schools.
Several other cities were conducting similar activities.

The project arranged to have school nurses coordinate with hospital emergency rooms to identify and work with families of asthmatic children to help them use every technique available to protect the children from asthma. The load of asthmatic children in the Philadelphia schools, which was averaged at 80 to a school, was the highest of all the cities that participated in this national project.

While there are a number of factors that cause this high rate, the reality is that the quality of the air in many counties in our State doesn't meet the safer standards of EPA.

Not only -- those who are vulnerable to asthma suffer because of air pollution, also chronic bronchitis, emphysema, and cardiovascular disease, are conditions that are made worse by poor air quality.

The medical literature is full of publications from this country and from foreign countries demonstrating the cleaner air leads to improvement in health status for people with lung conditions and chronic diseases.
Part of my work at Jefferson involves quality improvement in health care, and many medical institutions are under increasing pressure to show improved outcomes because of the significant percentage of the national budget we spend on medical care. But better outcomes not only require improved health care systems, they require cleaner air and a more healthful environment. We must take this opportunity to make progress, and we still have a long road to travel.

Given the shortage of time, I will submit the rest of my comments for the record. But these Tier --

MR. GRUNDLER: Please continue.

DR. SARFATY: Thank you. These Tier 3 rules are not radical departures from existing standards. In fact, this rule will bring our country into line with gasoline sulfur levels that are already being achieved in Western Europe, South Korea, and Japan, as well as the State of California.

The EPA should be applauded for pushing the United States in the direction of the countries and States that are taking the lead in improving the public's health by clearing up the air we breathe, by
regulating the emissions that originate in vehicles.

If energy efficiency and public health guide our decisions, we'll be on sounder footing as we go forward. Knowledge and the technology have advanced to the point where these improvements are possible. The time to make these advances is right now.

Thank you for listening.

MR. GRUNDLER: Thank you so much for coming, both of you.

Any questions?

MS. KNOWLTON: Thank you.

DR. SARFATY: I'd also actually like to just take the opportunity to extend my thanks to Penn Future and to Penn Environment and the other environmental organizations in Pennsylvania, which really do an excellent job of keeping us updated on what is going on at the national level and the local level, and are able to bring groups out like you're seeing today.

MR. GRUNDLER: Thank you.

[Whereupon, the meeting was recessed briefly at 5:24 p.m., to reconvene at 5:31 p.m.]
DR. PANTICH: Thank you. Thank you for the opportunity to speak today.

MR. GRUNDLER: Please proceed.

DR. PANTICH: My name is Dr. Howard Pantich, and I'm a pediatric pulmonologist at the Children's Hospital of Philadelphia. I'm speaking today on behalf of the American Thoracic Society, which is a medical professional organization of over 15,000 physicians, researchers, and allied health professionals dedicated to the prevention, detection, treatment, and cure of respiratory and sleep disorders and diseases requiring intensive care through research, education, and advocacy.

I treat sick kids, kids who have severe and complex health conditions that impact their lungs. Through medications, interventional procedures, education, and disease management, my colleagues at Children's Hospital and I can usually make a difference in these children's lives. But there is one thing no medical intervention can protect children from, and that is air pollution.
There is abundant research demonstrating that air pollution is bad for your health, especially if you're a child. Numerous chamber studies have convincingly shown that exposure to air pollution reduces pulmonary function and promotes airway inflammation. Epidemiological studies have linked air pollution to a whole host of adverse health consequences, including cardiac deaths, respiratory deaths, heart attacks, vascular remodeling, exacerbations of asthma, and chronic obstructive lung disease, and low birth weight.

What is most impressive about the scientific literature regarding air pollution is that it is comprehensive with literally hundreds of studies documenting that air pollution in its various forms is harmful to human health.

The findings have been consistent. Over decades, researchers have been able to apply improved technologies to document the health effects of air pollution at consistently smaller doses. Vehicle tailpipe emissions are a significant source of air pollution. Tailpipe emissions contribute to overall
air pollution, and also create hot spots along highways and other high traffic areas.

In many cases, vehicle-generated air pollution hits low income neighborhoods particularly hard. Vehicle tailpipe emissions include known air pollutants like particulate matter, and the emissions release pollutants that combine in the atmosphere to create ozone. Exposure to ozone and particulate matter is bad for human health and has been linked adverse health consequences, including cardiac deaths, respiratory deaths, heart attacks, vascular remodeling, COPD exacerbations, asthma exacerbations, and low birth weight.

The American Thoracic Society strongly supports the EPA's proposed rule to reduce vehicle tailpipe emissions. We are particularly supportive of the proposal to reduce the fuel sulfur content from 30 parts per million to 10 parts per million. When implemented, this action will have the immediate impact of making all existing engines burn cleaner. It'll have an immediate positive impact on air pollution reducing air pollution will improve children's lives,
and we can measure that impact in reduced asthma
attacks, reduced emergency room visits, and reduced
missed school days. Parents will measure the
improvement with healthier children.

The policy will also have the double benefit
of allowing auto manufacturers to use improved
technology in catalytic converters and other pollution
control technology to make future vehicles emit even
less pollution.

The dangers of pollution are real. The
science documenting the adverse health effects of air
pollution is conclusive. The technology required to
reduce air pollution is readily available and in use
today, and the benefits of the proposed rule are
meaningful and significant. For all these reasons, the
American Thoracic Society strongly supports the
proposed vehicle tailpipe rule.

Thank you for your time, and I would be happy
to answer any questions.

MR. GRUNDLER: Thank you so much for coming
down, Doctor.

DR. PANTICH: My pleasure.
MR. GRUNDLER: It's very helpful.

Ms. Jenkins?

MS. JENKINS: Yes.

MR. GRUNDLER: And then if you need to leave, Doctor, could you leave a copy of your written testimony, that way we can include it in the record?

DR. PANTICH: Certainly.

MR. GRUNDLER: Thank you.

Ms. Jenkins, welcome.

MS. JENKINS: Thank you. Pardon my casual attire. I'm headed down to the Phillies game tonight, so I just want to --

MR. GRUNDLER: Who are they playing?

MS. JENKINS: Who are they playing or how are they playing? They're not playing very well.

[Laughter.]

MR. GRUNDLER: Who are they playing?

MS. JENKINS: They're playing Pittsburgh.

MR. GRUNDLER: They're playing Pittsburgh.

MS. JENKINS: Yeah, they're playing Pittsburgh, so it's an inner State rivalry here.

I just would like to give no technical
testimony. I'll let that up to the experts. But I have been a resident in Philadelphia for a very long time. I am involved with several community groups. I'm a board member of ADA, tries to promote good government, and progressive politics, and environmental standards, and everything that you're talking about today. I also am a grandmother, so I'm concerned with my grandchildren's health and be able to breathe, especially in the City of Philadelphia where so many children suffer from asthma and other breathing problems. So we want to make sure that we can do what we can as a society to try to make a sustainable future for them.

So I would just would like to support all of the standards that are -- that you're supporting to put I place, both as a family member and a resident of a major city, and as an activist and political party, and community organization.

So I just would offer that testimony, and if you want to talk about anything concerning, you know, whether the clean air needs to be beneficial to the Phillies to play tonight --
[Laughter.]

MS. JENKINS: -- I would definitely answer any questions. Thank you for inviting me.

MR. GRUNDLER: Thank you. We appreciate you taking your time to come and give us your comments.

And good luck this evening.

MS. JENKINS: Thank you. I hope you're not a Pittsburgh fan.

[Laughter.]

MR. GRUNDLER: Go Phillies.

MS. JENKINS: Indeed. Thank you.

MR. GRUNDLER: We're going to take a -- we have one scheduled for the next 45 minutes, so the EPA team is going to take a break, and we're going to reconvene at 6:30. And so the technical support team can take a break as well. We'll be back.

MR. GRUNDLER: Thank you.

[Whereupon, the meeting was recessed briefly at 5:38, to reconvene at 5:42 p.m.]

MR. GRUNDLER: Feel free to proceed, Jay.

MR. BUTERA: Yes, thank you. So appreciate you letting me add a few more comments. I'm Jay Butera.
I spoke earlier.

One thing I did not have time to speak about before was my views on the costs associated with the ruling. And I find it difficult to put a cost on clean air. And so when we talk about the potential increase the cost of gasoline to be one cent by your estimates, five or ten cents perhaps by other estimates.

I find it -- I feel that it should be -- I mean, clean air is priceless. Clean water is priceless. And there's so many things that we have to pay for. It should be a no-brainer to pay for clean air.

Driving down here, I saw sort of an ironic scene. There's an area in Philadelphia where there's signs. We have fines. If you play your radio too loud, there's signs that says $200 fine for playing a radio loud. I pass other signs that say littering, $500 fine, $1,000 fine. I was in New England over the weekend, and they have anti-littering signs there where the fine is $10,000. And I say to myself a $10,000 fine for littering, and this guy driving down the highway spewing toxins visibly out the back of his car,
that's free.

And so, I feel that whatever cost is added to pollution, whatever the cost incurred to pollute, it's okay, because it should be costly to pollute. We should not be allowing pollution to be free. There should be a deterrent to it, and if that's a cost of a penny a gallon, it's cheap. And frankly, I'm against pollution at any cost.

So I wanted to add that to the record. And I think most Americans would be happy to contribute a penny a gallon and $130 per vehicle toward cleaner air. And it's a good investment, and we should not shy away from things that could improve health, reduce mortality, and cut pollution. We shouldn't shy away from that just because of a small cost. And there's no cost that would be too high for those things.

Thank you.

MR. GRUNDLER: Thank you for those comments. I'm curious, have you seen city's -- the city has established a penalty for unnecessary idling?

MR. BUTERA: Yes, I've seen those signs, and I suppose that is something that is beneficial, you
know. Idling is useless pollution, so I have seen those, and I welcome those. And, you know, I'm not in favor of excessive regulations, but what's excessive about doing things to preserve our air and water? You know, it's just common sense. It's kind of -- it should be the first thing we protect I think at all costs. Yeah. And now we have the technology to do that, so let's go.

I thank you for coming to Philadelphia to do this hearing and for allowing me to speak again.

MR. GRUNDLER: You're very welcome. Thank you for sharing your extra comments.

MR. BUTERA: You're welcome.

MR. GRUNDLER: Safe travels.

MR. BUTERA: Thank you.

MR. GRUNDLER: Thank you.

[Whereupon, the meeting was recessed briefly at 5:47 p.m., to reconvene at 6:31 p.m.]

MR. GRUNDLER: The Tier 3 public hearing will reconvene now. I'd like to invite panel number 11 to have a seat and to fill out a name card: Katie O'Malley, Gabriela Graterol, Bridget Killen, and Gail
Mershon. Welcome.

We'll proceed from my left to right. Ms. O'Malley, you may proceed when you're ready.

MS. O'MALLEY: Hi. My name is Kathleen O'Malley. I am a Pennsylvania licensed attorney with a certificate in environmental law and a Masters in public health degree, with a certificate in risk assessment and communication, as well as global sustainability and health from Johns Hopkins, Bloomberg.

I work in the Philadelphia area, and I play sports here. I walk, bike, run, and play ultimate Frisbee in Philadelphia.

I am very concerned about the severe air pollution in Philadelphia and its effects on myself and other residents of Philadelphia who live, work, and exercise here. I understand that the American Lung Association gave Philadelphia an F in air quality. This is merely one of the reasons that I strongly urge you to enact the Tier 3 cleaner gasoline and tailpipe standards to reduce smog forming pollution from gasoline powered cars and trucks.
The EPA should pass these air-pollution limiting regulations out of concern for the health of vulnerable members of the population, such as young children, people with asthma, those who are immuno-suppressed, and the elderly.

Every day Americans and Philadelphians are exposed to a melange of carcinogens from air pollutants to unregulated carcinogenic chemicals, like polystyrene, which is a component of most yogurt containers. From a risk assessment perspective, the EPA should follow the recommendation of the Silver Book, also called Science and Decisions: Advancing Risk Assessment, which was created by the Committee on Improving Risk Analysis Approaches used by the EPA National Research Council. And the EPA should consider cumulative risk as it decides whether to enact these Tier 3 Standards.

The Agency should enact these Tier 3 standards to limit air pollution from cars and trucks, thereby reducing the amount of cumulative exposure and, thus, cumulative risk to Americans from air pollution. It is very important to limit as many known exposures
to air pollution as possible since we have not currently quantified every risk and mechanism of action from unknown and poorly understood sources of air pollution.

The Agency currently has the opportunity to insert an upstream, technology forcing control that will reduce air pollution, protect public health, improve quality of life and the environment, save money on medical costs, improve public confidence in the Agency's ability to carry out its mission, improve public confidence in the U.S. government as a body that serves the interests of the public before those of industry and special interests.

The technology forcing component of the Clean Air Act is one of the most powerful tools that exist to protect the environment and public health. It is not only the EPA's prerogative, but also its duty to protect public health and the environment by implementing technology forcing regulations as intended by Congress when they passed the Clean Air Act and the 1990 amendments to the Clean Air Act.

There is no reasonable argument that can be
made to vitiate the Agency's clear duty to act to
protect public health and the environment by enacting
these Tier 3 standards. Thank you.

MR. GRUNDLER: Thank you very much for those
comments.

Ms. Graterol? I hope I didn't get that too
off.

MS. GRATEROL: That's pretty good.

MR. GRUNDLER: Oh, you're too kind.

[Laughter.]

MS. GRATEROL: My name is Gabriela Graterol,
and I am a master of public health student at the
University of the Sciences in Philadelphia. I am here
to stand in support of the EPA's proposition on Tier 3
vehicle emissions. As a student of public health with
a concentration in health policy, I urge the public and
the government to accept this proposal as what it is,
an opportunity to do something right, an opportunity to
Improve our children's and adults' health and health
care cost and the environment, create jobs in research
and development, engineering, manufacture, to develop
lower cost technologies that are required for this
improvement in fuel, reduce greenhouse gas emissions, and create better quality oil derived products in the market.

Over 158 million Americans are currently exposed to unhealthy levels of air pollution which are linked to adverse health effects, such as hospital admissions, emergency room visits, and premature mortality. Motor vehicles are a particularly important source of this air pollution, especially in urban areas, such as Philadelphia.

Asthma is a major public health issue in the world, and pollution certainly exacerbates it. In the U.S., about one in 12 people, which is about 25 million Americans, have asthma, and the numbers are increasing every year. Asthma costs the United States about $56 billion in medical costs, lost school and work days, and early deaths in 2007. Pennsylvania is one of the States that have the most proportion of adults diagnosed with asthma compared to any other State in the United States with over more than nine percent of the total population of adults affected.

Emission reductions from the Tier 3 program
would lead to immediate air quality improvements that
would help prevent the exacerbation of asthma attacks,
which in 2008 was one in every 12 patients. These
improvements are critically important for States to
attain and maintain the existing health-based National
Ambient Air Quality Standards. In the absence of these
additional controls, such as Tier 3 programs, many
areas would continue to have air pollution levels that
exceed the standard that the NAAQS is trying to set for
the future, and continue to magnify the health issues
involving respiratory conditions.

I believe as a citizen that it is important
that the EPA and the government to hold gasoline
refineries and oil companies accountable for national
compliance on air quality. As my everyday job, I am a
regulatory officer for a medical device company, and
every day I make sure that the user gets a health
product that has gone through extensive quality
management systems against international and national
standards in order to guarantee the user an optimal
quality product and safe.

I believe we deserve the same from the oil
industry and auto manufacture industry, which is
incidentally in support of this proposal as well. But
for the oil industry, especially gas refineries who
strongly oppose the idea of the proposal and investing
a small portion of their very big, large profits to
create a product of high quality, and so denying the
user of an opportunity to have better and more
qualified products for our children, their future, and
the planet.

Thank you.

MR. GRUNDLER: Thank you very much.

Next, Ms. Killen?

MS. KILLEN: You said my name right, so good
job.

[Laughter.]

MS. KILLEN: My name is Bridget Killen, and
I'm from the suburbs of Philadelphia, and I just
graduated in May. But my major was in communications,
and I've always had a great passion for the
environment. And I currently work at a preschool, so
working there, it makes me realize how much having
clean air is important to everyone, especially the
young kids because when I was a kid, clean air was more precedent, more around because no one had asthma, and the kids that had asthma would stick out. But now it seems like every child seems to have asthma on the playground, and it really limits their ability to have fun, which is sad.

But we have a moral obligation to leave the earth in better shape than how we found it, and that's what civilizations do. Of all the things we need to survive, air is the most important. Without food, a person can live for more than a week. Without water, they can live for several days. But if the person is deprived of air, they will die within minutes.

Dirty air harms the plants that we need. Polluted air also negatively impacts the quality of water. Dirty air also causes global warming. Poor air can limit the amount of outdoor activities we need and enjoy. Clean air is good for the economy, and who wants to live in an area that is polluted air?

Thank you.

MR. GRUNDLER: Thank you.

Ms. Mershon?
MS. MERSHON: Yes, hi. Gail Mershon.

I'd like to talk about two things if I may.

The first if myself, and the reason I want to talk about myself is because I have asthma, and I live in -- I work in Philadelphia. I work in several zip codes of Philadelphia. And my work involves being in my car all day every day as I'm an itinerant occupational therapist working with young children. So I go from preschool to day care to homes, et cetera, et cetera. And I'm sitting in my car inhaling this stuff that's coming out of tailpipes all day long every day.

And I first left Philadelphia in '84, 1984, when I received my diagnosis of asthma and other respiratory conditions, because I was -- I did some research and I discovered that Philadelphia was quite polluted, and decided I didn’t want to shorten my life by as much as 15 years. So I left, and I've only returned in the last less than four years for other reasons, and partly because my heart is here in Philadelphia.

So unfortunately, I've noticed that my health has deteriorated rapidly since I've been back. I've
been hospitalized twice with -- once with pneumonia and once with asthma exacerbation. And I've missed a lot of work to the extent that I'm in considerable debt now because I've had to go without pay.

So there is a very personal reason for me to be excited about these fuel standards, especially the fact that the sulfur fuel standards, that it would really benefit existing cars as well as new cars. That's very exciting to me because most of the cars I'm behind all day long are old, older model.

So now to switch to the children I work with, primarily three to five-year-olds. I'd say on my caseload right now, 25 percent of them have asthma, and I don't even need to read in their charts anymore that they have asthma. I can tell by looking at them, by talking to them, and by watching them play. I can tell when they've had an exacerbation and when they've had a treatment the night before because the results of these medications that they're given for their treatments, often times they have to have -- oh, I forget what it is, but it's Albuterol and some other medications that make them very hyper and jittery. And they can't pay
attention. They can't follow direction. They can't
play outside with their friends.
And this is so -- this feels so terrible to
me. They're three, four, five, and going on six years
old, and already there's a huge strike against them,
many strikes against them because of the air quality
that they're breathing.
And so I really urge you to pass these
standards for the children and for all people who are
suffering from asthma. Thank you.
MR. GRUNDLER: Thank you, all of you, for
coming down and taking your time out of your day to
share these stories and these comments. It's very
important, and we admire your engagement in this
process, and we take it very, very seriously. So thank
you.
Are there any questions from the panel?
MR. MACHIELE: No.
MS. LOWE: I'm a latecomer, but I'm signed
up.
MR. GRUNDLER: All right. Are you Patricia
Lowe?
MS. LOWE: Yeah.

MR. GRUNDLER: You're not late.

MS. LOWE: This is my little poster, sort of summarizes my testimony. My boyfriend and I always fight over the vent, like I say close that, I don't want the so-called fresh air because whenever it goes down the hill, it stinks like rotten eggs. It's heavier than air, down the hill and into the stink.

And I realize -- later on I found out the sulfur dioxide is heavier than air, and my boyfriend said, that's your imagination. Yeah, you smell it, like I don't care. But actually I said, well, it's hurting your health as well as mine.

MR. GRUNDLER: If you'll excuse me, but before you proceed, could you just introduce yourself?

MS. LOWE: Oh, my name is Patricia Lowe. I live in Northeast Philadelphia. And we're not immune from that. I mean, I grew up in Olney when they had the choo choo trains. My said, well, it smells like choo choo trains. I guess a lot of it was vehicle emissions, but there were less cars then, and it was really was coal burning crap, like there was a foundry
near Olney High, you know. You used to smell molten metal out of our high school window in math class.

Air quality in Philly is better now than it used to be. I can attest to that being a lifelong Philadelphian, like, from the 50s. But be that as it may, I could say also that Northeast Philly smells smells better than Northern Liberties because you've got a little bit more grass and trees. But you still have vehicular traffic.

So when you go down the hill on Bustleton Avenue, like it's hilly. You're riding down the hill. You get on the hill, you could be in the park even, but it's when you're down at the bottom of the hill, you'd better have the windows shut because you smell the sulfur dioxide.

So I would appreciate additional regulation on that. It would help my asthma. There's other things that help asthma like being vegetarian and anti-inflammatory diet, et cetera. But it can't all be on us.

I had a smoking grandfather. He was a pain, you know, because you had it inside and outside. But I
1 could say what they could do for the non-smokers who
2 are blameless, they should at least regulate the sulfur
3 and the other noxious gasses in the air, and it's
4 government's role, I feel, to do that.

5 Thank you.

6 MR. GRUNDLER: Thank you for coming.
7 Are you Kevin Little?
8 MR. LITTLE: Yes, I am.
9 MR. GRUNDLER: Please introduce yourself, and
10 proceed when you're ready.
11 MR. LITTLE: Yes. My name is Kevin Little,
12 and I am a resident of Philadelphia. I was raised in
13 Philadelphia, educated in the State of Pennsylvania
14 entirely. And I am now a science teacher, and I've
15 lived in Philadelphia over 40 years, and my family
16 lives in Philadelphia in the University City section of
17 West Philadelphia today.

18 I'm here because I am concerned about sulfur
19 emissions from automobiles. I watched a movie called
20 Fuel put out by Josh Tacal, the veggie van guy, and I
21 learned that he grew up in Cancer Alley in Louisiana
22 where his mother had nine miscarriages or maybe it was
only seven. And they couldn't swim in the rivers, and they later found that everyone was getting sick. And that resonated with me because I grew up, started off in the project past Young Homes, the projects near the oil refinery in South Philadelphia. I once heard it's the largest in the country, I'm not sure. But I don't live there anymore. I moved away. But still there are problems. I've noticed that both my kids have been diagnosed with asthma, my 17-year-old and my 12-year-old. And we try and eat right. We try and eat healthy. We try and get exercise. And I have specific memories of my son playing in the schoolyard. My son goes to a grade school. My daughter goes to a grade school, the Penn Alexander School in Philadelphia, except there's a big problem.

I remember a school boss idling and the diesel fumes and complaining. And then a few years later, my son was diagnosed with asthma. That couldn't be my son, but the diagnosis was the diagnosis. And I know there are laws against school buses and buses and diesel vehicles idling. And when we ride our bikes and
when I ride my bike, we try and avoid the soot coming out of buses and trucks. You can see it. We know that they're not supposed to be idling. It's against the law. But it happens.

I'm here today because there's another problem: sulfur in cars. There's no law against the cars idling. You can't see the exhaust that comes out. You can't see the sulfur coming out. It's my understanding the sulfur dioxide is a colorless gas.

I remember in my chemistry class, writing out the equation, the combustion of octane gasoline, and the products are carbon dioxide and water. And I remember telling my students that when you burn something in a combustion reaction, you get carbon dioxide and water. I remember telling my students that when you see a car stopped at a red light and you see liquid dripping down, it's water, mostly water. You can't see sulfur dioxide. I can't avoid it.

I can see the soot coming out of the buses. We can take license plates numbers, and we can call and have people fined for letting their trucks and buses and school buses idle, but there's nothing we can do
about the cars. That's why I'm here. I need you to do something, because both my kids have asthma, and I've done everything: moved out of the projects, try and feed them a healthy diet, make sure they get exercise. We avoid buses as much as possible, at least the soot coming out of them. But we need your help on this one. There's nothing else I can do. Thank you.

MR. GRUNDLER: Thank you very much, Mr. Little.

Cara Meglio, we welcome your testimony now.

MS. MEGLIO: Is this on? I live here in Philadelphia, and I work in the suburbs in King of Prussia about 25 miles away. I consider myself very lucky to have a job that I really enjoy, even though I'm young and just out of college. And I get to live in a city that I like. But the only down side is that I have a long commute, and I have to take the Schuylkill Express every day, which frequently backs up with traffic. So I am generally on the road for about two hours every single day. And it's nice when, you know -- when it's a
pleasant day outside, I get to put my windows down, which makes it a little better. I get to breathe the fresh air, but along with the air I'm breathing in, the exhaust of all the cars that are around me, as far as the eye can see in both directions. And I think about it every day and the potential for it having a negative impact on my health in the years to come.

So I just -- I don't think that's it fair that I should have to worry about the risks of developing asthma, the risk of developing respiratory problems just to get to work every day. And the risk isn't really over after I get home from work. Like many people in Philadelphia, I only live a couple of blocks away from Route 95, so really it's just a constant problem that I'm always exposed to.

And I think that the proposed clean fuel and tailpipe standards are an excellent way to make a huge difference at a tiny cost. So for the sake of the environment, myself, and millions of Americans like me, I urge the EPA to adopt these reasonable new measures.

Thank you for taking my comments into consideration.
MR. GRUNDLER: Thank you, and we will. And thank you all again for taking time to share your comments with us. They're very, very valuable.

Any further questions from the panel?

[No response.]

MR. GRUNDLER: Thank you so much.

Anybody else in the audience wish to provide some testimony?

We're just conferring here to see if we're expecting anyone else.

MS. SARGEANT: Let's open back up the Tier 3 hearing. And we have two more witnesses here today, so we have Noah Kramer and Miranda Outman. And so if you'd like to proceed, either one of you. Who wants to go first?

MS. OUTMAN: Sure. Well, hi. I'm Miranda, and Noah asked me to first deliver a message on his behalf. So Noah's message is to please stop pollution because it makes animals sick. And I would also endorse that sentiment.

I wanted to just say two things quickly. I'm about to be certified as an emergency medical
1 technician and just joining a squad. And the illnesses
2 we see have a direct environmental correlation. You
3 don't find the levels of cancers that we have here in
4 countries with stronger emission standards. And we do
5 things, like from Central New Jersey, drive really
6 young kids with metastatic cancer all the way down here
7 to Philadelphia to St. Jude's.
8 
9 And while it's wonderful that we have these
10 facilities, we are putting all this money into cures
11 where we really have the tools of prevention at our
12 fingertips. And I would just ask, you know, in my
13 capacity as a health care provider, ask people to look
14 around at the room because -- you want to try it? Go
15 ahead and try. You want to try?
16 
17 MR. KRAMER: Hi.
18 
19 [Laughter.]
20 
21 MS. OUTMAN: That was really good. Yeah,
22 okay. I'd just ask people to look around the room
23 because in one -- if you remember that we're in a coal
24 mine and wherever you look just among the people around
25 you and among your own friends and family members,
26 you're going to see a canary.
And then the other thing that I would say is that, you know, when people look back -- the other thing in addition to doing kind of basic medical things is I love history. And when people look back at history and they read about exciting times in history in, like, you know, the Second World War or something, they always imagine themselves being a hero. And they say, well, if I was there, I would do this wonderful thing.

But we are right now in the middle of history, and we have the chance to take profoundly heroic and necessary action, and the next generations will be very disappointed if we don't. And so we have the opportunity right now to be heroes I history by standing up to this -- by standing up and doing something about the rapidly-changing temperatures on our climate. And we're kind of the last best hope to make a difference there.

So thank you all very much.

MS. SARGEANT: Thank you very much. Thank you, Noah, for coming.

Okay. So we have two more testifiers, so
we're going to wait just a moment. If you want to come on up and get seated, that's fine. And so we'll just wait a moment.

All right. So I'd like to welcome our next panel. Fiona Grant and John Poole. Okay. All right. So we'll start with Fiona.

MS. GRANT: Yeah. I'm Fiona Grant, and I'm a student at Cabrini College. Like the young idealist that I am, I can honestly say that the earth and the air matter a lot to me. I think about them a lot in the abstract. I think about the vast expanses of rain forests that are every day being ripped apart and will never exist again.

I think about the dripping, melting, breaking, spreading, thinning ice at the North and South Poles. I think about the global temperatures that slowly but surely creep upward, about the heat records that are being broken every day. I think about this on a global scale. I picture it all in my head, and I am completely and totally overwhelmed.

But beyond the abstract, beyond the overwhelming reality of our effect on planet Earth,
there is another reality, and that is the life of my little brother, Aidan, who suffers from asthma. Aidan is 14 years old. He lives with the rest of my family in Louisville, Kentucky. Our home city is surrounded by coal fire, power plants, plenty of urban sprawl, besides being filled with cars.

All of the pollutants and particulates from these various sources pool in our Ohio River Valley, further clogging Aidan's delicate lungs. And as our air gets worse and our world continues to heat, Aidan's ability to experience the wonders of our planet is more and more restricted.

Aidan is incredibly inquisitive, watchful, and intelligent. He can spend hours sitting in our backyard, binoculars up to his bright eyes, and a birder's guide in his hand, perfectly still, listening and looking for the birds he loves. Whether they're sparrows, cardinals, woodpeckers, or mourning doves, Aidan is keen to see the point of their beak, the flashs of their eye, and the flap of their wings. Over the past couple of years, he has been compiling a complete and total catalogue of all the birds that have passed.
I love my brother. He holds so much promise. I want the best for him. I want a world with air he can breathe. I want a world with flourishing woodlands, immaculate waters, the soaring peaks, and frozen glaciers, a world where spring comes with rain and blooms, summer with sun and green, fall with crisp color, and winter with ice and sharp chill. But I know that this world is dwindling. I fear that by the time my little brother is done with college and an adult in the real world, the little that is left of this world will have dwindled even more.

So I'm here specifically on behalf of my inquisitive little brother to ask you to take our air seriously. Even in my city that does not have as much air pollution as Philly, my brother has developed asthma. Increasing tailpipe standards is an easy and simple way to prevent degradation of air across this Nation. This is a fabulously nitty gritty, unglamorous step toward a cleaner future.

Thank you so much.

MR. GRUNDLER: Thank you.
Mr. Poole?

MR. POOLE: Hi. My name is John Poole, and I live in the 1st District in Philadelphia. I am here obviously to talk to you about the proposed tailpipe standards and how they benefit individuals in major cities like myself. I originally am from West Virginia, which is a place that's much different than Philadelphia, much more rural.

And I was surprised when I moved here the different quality of the air. And at first I thought, you know, I was imagining it, and then I actually got to reading it because I work for a Medicaid insurance company. And we actually have nearly double the national rate of childhood asthma in Philadelphia, and that really struck me because I've always worked a lot with children in different ways.

At least half of these individuals have been to the emergency room at least once in the past year are these children. And that's even, like, twice the amount of just the children outside of the city in the suburbs, like almost right over the city line. It's twice as much in the city. And part of that is
tailpipe pollution, you know, and some of the other air pollution that we have in the city. As far as the incidence of adult asthma in Philly, we're the number one city with a smoking ban as far as asthma is. As far as cities that have problems with asthma.

Also, 16,000 children make at least -- in the city, 16,000 children make at least yearly emergency department visits for asthma, 4,800 make at least two visits a year, 4,400 make at least three visits, and 1,800 make five or more visits. And this is just in the City of Philadelphia, the city limits.

Also, there's a lot of other benefits to these increased tailpipe standards that have been proposed. Obviously, you know, you've probably heard from other people that appeared from the Sierra Club that it could prevent 400 premature deaths yearly it's estimated, prevent 52,000 work days lost by Americans yearly, could create 30,000 jobs through the technological advances that are required by auto makers and refineries to bring this up to the standard. Also reduction of health care costs of $5 to $6 billion by 2020 or $10 to $11 billion by 2030. In addition, the
reduction of climate change contributing air pollution is equivalent to taking 33 million cars off the road. So kind of like what Fiona said, I think this is kind of a no-brainer, especially since it's supported by auto makers, United Auto Workers, numerous local State health agencies, environmental groups. And many of these people estimate that it will likely on cost one penny per gallon of gasoline. So again, my name is John Poole, and thanks for having the opportunity to hear me.

MS. SARGEANT: Thank you so much for coming. Does anybody have questions? [No response.]

MS. SARGEANT: No? Thank you so much for coming. Is there anyone else here who wants to testify? [No response.]

MS. SARGEANT: Okay. I think that's the end then, so we'll adjourn the hearing. Thank you, everyone, who stuck it out to the end. Appreciate it. [Applause.]

[Whereupon, at 7:47 p.m., the meeting was
concluded.]