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**TESTIMONY OF
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COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS
UNITED STATES SENATE**

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I. INTRODUCTION

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity today to testify on improvements we intend to make to the new source review (NSR) program under the Clean Air Act. I am pleased to be joined by Dr. Ken Olden of the National Institute of Environmental Health Sciences, who will address recent findings from the federal particulate matter (PM) research program, in which both of our Agencies are prominent. The NSR program is one of many Clean Air Act programs. It allows for industrial growth without compromising our progress towards cleaner air. To accomplish this goal, the NSR program requires companies to install state-of-the-art pollution control equipment when they build a new major emitting facility or when they make a major modification to an existing plant that would result in a significant increase in emissions of a covered pollutant. Based on over 10 years of EPA review of and public comment on the NSR program, the NSR program, as it applies to modifications of existing plants, needs to be modified to work better. As a result, we will soon be finalizing one set of improvements that were first proposed in the Clinton Administration and proposing another set of improvements. The changes that we are finalizing will make the program work better and provide public health and environmental benefits. For the changes that we will be proposing, one of the issues we will take comment on is their impact on public health and the environment.

Since I have not testified in front of this Committee before, I would like to take this opportunity to describe the tremendous public health and environmental benefits of the many programs that comprise the Clean Air Act. I hope that this important background information will also help you put the NSR program in context. The Clean Air Act, particularly the 1990 Amendments that were proposed and then signed into law by President George Herbert Walker Bush, has provided and continues to provide us with significant public health and environmental benefits. Since the 1990 Amendments were enacted, this nation has made great progress in reducing acid rain, meeting health-

based air quality standards, protecting the stratospheric ozone layer, and cutting toxic air pollution. Yet we still face major challenges to achieve healthful air, a cleaner environment, and clear skies for all Americans.

In my statement today, I will describe the results we have achieved through Clean Air Act programs enacted to protect public health and environmental quality. I will then discuss the remaining air quality challenges we face today – particularly the need to protect public health by reducing levels of fine particle and ozone pollution. As we move forward to meet these new air quality challenges, it is important to evaluate existing programs and build upon or improve them. One of the key steps our country should take to reduce fine particle and ozone pollution quickly is for Congress to pass Clear Skies legislation – which would build on the successful acid rain cap-and-trade program to reduce SO₂ and NO_x emissions from power plants. It is also important to improve the NSR program. EPA's improvements are targeted to fix well-known problems with the program, while maintaining the Clean Air Act's fundamental purpose of assuring that major modified sources take necessary measures to address their emissions increases.

II. PROGRESS TOWARD CLEAN AIR

Our progress on cleaning up the air demonstrates that strong economic growth and a cleaner environment can go hand-in-hand. Since the basic structure of today's Clean Air Act was enacted in 1970, we have reduced emissions of six key air pollutants by 30 percent. At the same time, the economy has grown substantially. The Gross Domestic Product increased 160%; vehicle miles traveled increased 145%; energy consumption increased 45%; and the U.S. population increased 35%. This success story was made possible by American ingenuity spurred in large part by legislation that recognized the importance of a clean environment.

Our strong economy has helped us provide cleaner air, which has provided important public health and environmental benefits that far outweigh the costs. For example, lead levels in ambient air are 98% lower than in 1970, greatly reducing the number of children with IQs below 70 as a result of dirty air. The benefits from the programs in the 1990 Amendments alone are impressive. A peer-reviewed EPA study estimates that upon full implementation in 2010, the Clean Air Act programs signed into law by former President Bush will avoid tens of thousands of premature deaths, tens of thousands of cases of acute and chronic bronchitis, tens of thousands of respiratory-related and cardiovascular hospital admissions, and millions of lost work days, among other benefits.

To appreciate how far we have come in reducing air pollution, it is instructive to remember where we were before the 1990 amendments. Acid rain essentially was unchecked, causing damage to aquatic life, forests, buildings and monuments, as well as visibility degradation and health risks from sulfate and nitrate particles. There was growing concern about the increasing damage to the stratospheric ozone layer, which, among other things, protects us from skin cancer and cataracts. In

1990, photochemical smog, which can impair lung function, cause chest pain and coughing, and worsen respiratory diseases and asthma, exceeded healthy levels in 98 metropolitan areas. Many cities did not meet the national air quality standards for the pollutant carbon monoxide, which can aggravate angina (heart pain), and also for particulate matter, which is linked to premature death, aggravation of pre-existing respiratory ailments, and reductions in lung capacity. The millions of tons of hazardous air pollutants emitted annually in the United States were largely unregulated at the federal level. Many of these pollutants have the potential to cause cancer or other serious health effects such as nervous system damage.

Since then, the 1990 Amendments have enabled us to substantially reduce each of the major air pollution problems that faced the United States:

- Annual sulfur dioxide emissions, which react to form acid rain and contribute to fine particle formation, have been cut by more than 6.7 million tons, and rainfall in the eastern U.S. is as much as 25 percent less acidic.
- Production of the most harmful ozone-depleting chemicals has ceased in the U.S. and -- provided the U.S. and the world community maintain the commitment to planned protection efforts -- the stratospheric ozone layer is projected to recover by the mid 21st century.
- Ground-level ozone pollution, particulate matter, and carbon monoxide pollution have all been reduced significantly, producing dramatic decreases in the number of areas in nonattainment.
- Rules issued since 1990 are expected to reduce toxic air emissions from industry by nearly 1.5 million tons a year – a dozen times the reductions achieved in the previous 20 years. Other rules for vehicles and fuels will reduce toxics by an additional 500,000 tons a year by 2020.

Reducing Acid Rain

The 1990 Amendments created the Acid Rain Program, calling for major reductions in electric generating facilities' emissions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x), the primary pollutants that cause acid rain. The Acid Rain Program has been a resounding success, and at a much lower cost than first expected. The centerpiece of the program is an innovative, market-based "cap-and-trade" approach to achieve a nearly 50% reduction in SO₂ emissions from 1980 levels.

The results of the program have been dramatic – and unprecedented. Compliance with the Acid Rain Program began in 1995 and is now in its eighth year. From 1995-1999, the first phase of the Acid Rain Program, annual SO₂ emissions from the largest, highest-emitting sources dropped by nearly 5 million tons from 1980 levels. These significant reductions were an average of 25% below required emission levels, resulting in earlier achievement of human health and environmental benefits.

In 2001, the SO₂ emissions from power generation were more than 6.7 million tons below 1980 levels. NO_x emissions have been reduced by 1.5 million tons from 1990 levels by a more traditional rate-based program (about 3 million tons lower than projected growth). Because the NO_x component of the program is rate-based, however, there is no guarantee that NO_x emissions will stay at these low levels; without a NO_x cap, emissions will increase as power generation increases.

These emissions reductions are delivering impressive environmental results. Due to the drop in SO₂ emissions, rainfall acidity in the eastern United States has dramatically improved, measuring up to 25% less acidic. As a consequence, some sensitive lakes and streams in New England are showing the first signs of recovery. Further, ambient sulfate concentrations have been reduced, leading to improved air quality and public health, with fewer respiratory illnesses such as asthma and chronic bronchitis. Moreover, the air is clearer, particularly in areas where some of our most scenic vistas are found, such as the Shenandoah National Park.

These emissions reductions and environmental results have been achieved at a much lower cost than anyone expected. In 1990, EPA projected the full cost of implementation of the SO₂ emission reductions would be about \$5.7 billion per year (1997 dollars). In 1994, GAO projected the cost at \$2.3 billion per year (1997 dollars). Recent estimates of annualized cost of compliance are in the range of \$1 to 1.5 billion per year at full implementation.

The cost-effectiveness of the program is tied to the design features of the innovative cap-and-trade approach. The Acid Rain Program was designed to provide certainty that emissions reductions would be achieved and sustained while at the same time allowing unprecedented flexibility in how to achieve the needed emission reductions. This stimulates the use of a variety of emission reduction options, such as fuel switching, installation of control equipment, use of efficiency measures and renewables, and trading among sources. Because the market system places a monetary value on avoided emissions, compliance has stimulated tremendous technological innovation, including efficiency improvements in control technology.

When the Acid Rain Program was designed in the early 1990s, some were concerned about the potential effect of emissions trading on local air quality. Now, in the eighth year of the program, we know that flexibility under the Acid Rain Program has not adversely affected attainment of air quality standards. Independent analyses of the program demonstrate that trading has not created “hotspots,” or increases in localized pollution. In fact, the greatest SO₂ emissions reductions were achieved in the highest SO₂-emitting states, acid deposition decreased and, consistent with projections, the environmental benefits were delivered in the areas where they were most critically needed.

The environmental integrity of the Acid Rain Program also can be traced to design features of the approach. The program was developed with unprecedented levels of accountability and transparency. Sources must continuously monitor and report all emissions, ensuring accurate and complete emissions information. All data are publicly available on the internet, providing complete

transparency and the public assurance necessary for program legitimacy. Remarkably, sources have registered nearly 100% compliance.

Because of the unprecedented success of the Acid Rain Program, it has served as the model for numerous additional programs to reduce emissions cost-effectively in this country and around the world, including the President's recently proposed Clear Skies Act, which I discuss in some detail below.

Meeting Health-Based Air Quality Standards

Overview

The air in our nation is considerably cleaner than in 1990. Under the Act, EPA has set health-based national ambient air quality standards (NAAQS) for six common pollutants. Nationally, the 2000 average air quality levels were the best in the last 20 years for all six pollutants -- lead, nitrogen dioxide, sulfur dioxide, particulate matter, carbon monoxide and ozone.

Since 1990, an unprecedented number of cities have met the health-based national ambient air quality standards. In fact, more than two-thirds of the areas designated as nonattainment following the 1990 amendments now have air quality meeting those standards based on 1998-2000 data, including:

- 41 of the 43 carbon monoxide areas
- 69 of the 85 coarse particulate matter (PM-10) areas
- 71 of the 101 ozone areas (one-hour standard)

While air quality improved, the economy showed robust economic growth, increasing 37 percent between 1990 and 2000.

In 1997, based on updated scientific information, EPA set a new standard for fine particles (PM_{2.5}) and a revised, 8-hour standard for ozone that is more stringent than the one-hour standard. We have made great progress working with states to get monitoring systems in place for PM 2.5. Many areas across the eastern U.S. and in California appear to have pollution levels exceeding the 1997 standards.

For the other common pollutants, only a few areas remain in nonattainment. The remaining lead and sulfur dioxide nonattainment areas in the country are the result of localized point sources for which action on an individual basis is being taken. Since 1998, all cities have met the air quality standard for nitrogen dioxide.

Ongoing work to combat ozone pollution

The Clean Air Act gives states the primary responsibility for meeting national air quality standards by developing and implementing state implementation plans (SIPs). EPA assists states by providing guidance, setting national emissions limits for sources such as motor vehicles, and requiring control of upwind sources that contribute to downwind problems in other states.

During the past two years we have reached a major milestone in cleaning up smog in many of our nation's largest cities. In the Northeast, Midwest and South, states have completed plans for attaining the 1-hour ozone standard in all of the metropolitan areas that have pollution levels considered serious or severe under the Act.

Interstate transport of ozone and NO_x, an ozone precursor, is a major contributor to the ozone nonattainment problems across the eastern United States. No state can solve this problem on its own.

As a result, EPA has issued two complementary rules -- the NO_x SIP Call and the Section 126 rule -- in a combined Federal/state action to reduce interstate ozone transport. The effect of the two rules together is to require NO_x reductions in 19 states and the District of Columbia. EPA anticipates that full implementation of these rules will reduce total ozone-season NO_x emissions from power plants and large industrial sources by approximately one million tons by the 2007 ozone season. This is essential for many of the remaining ozone nonattainment areas to meet the one-hour standard, and will greatly reduce the number of areas exceeding the more-stringent 8-hour standard.

The NO_x SIP Call, which sets emissions budgets for states, and the Section 126 rule, which applies directly to power plants and large industrial sources, both allow for implementation through a market-based cap-and-trade program that allows facilities to choose the most cost-effective means of reducing their pollution. All of the states subject to the NO_x SIP Call plan to use the cap-and-trade approach.

EPA's reliance on existing CAA authorities for addressing ozone transport is working, but three major lawsuits by some states and corporations have delayed implementation. EPA issued the original NO_x SIP call rule in 1998. Both the SIP Call and the subsequent Section 126 Rule set a May 2003 compliance date. However, one court ruling delayed the NO_x SIP call compliance date until May 31, 2004. A second court ruling stopped the compliance clock for electricity generators subject to the Section 126 Rule while EPA responded to concerns the court raised with heat input (fossil-fuel-use) projections for electricity generators, which EPA used in calculating emissions budgets for the two rules. As a result, the two rules were no longer synchronized.

Administrator Whitman on April 23 signed a rule setting the Section 126 compliance date as May 31, 2004 -- once again harmonizing the compliance dates. This will facilitate withdrawal of the federal Section 126 program in states that meet the requirements of the SIP Call Rule, and help to

avoid potential overlap of the two programs. The Administrator also signed a notice that explains EPA's decision to retain the original heat input projections. In a separate action, EPA recently issued a proposed "phase II" rule responding to other issues from court decisions on the SIP call and Section 126 rules.

Cutting Transportation Emissions

In general, transportation sources contribute roughly half of the overall pollution in our air. The contribution, however, can vary significantly from pollutant to pollutant and from city to city. Note that when I refer to transportation sources I mean all highway motor vehicles as well as diverse types of off-road vehicles and engines. They are major sources of four pollutants, contributing 56 percent of the total U.S. emissions of NO_x, 77 percent of CO, 47 percent of VOCs, and 25 percent of the PM.

Cleaner Vehicles

Cars being built today are well over 90 percent cleaner than cars built in 1970. This is a result of a series of emission control programs implemented by EPA through nationally applicable regulations. Since the first tailpipe standards took effect in the 1970's, there have been increasingly more stringent standards; most recently Tier 1 in the mid-90's; the National Low Emission Vehicle (NLEV) Program, which is in effect today; and Tier 2 standards set to take effect beginning with the 2004 model year. In the Tier 2 standards and most other national vehicles and fuels rules issued since 1990, EPA has provided compliance flexibility through emissions averaging and trading systems.

Tier 2 will take a major step toward reconciling passenger vehicles with clean air. For the first time it holds SUVs, minivans and pick-up trucks to the same emission requirements as autos. Tier 2 is also fuel neutral, which means that gasoline, diesel and alternative fueled vehicles all must meet the same set of standards. Tier 2 is cost effective and its benefits to public health are large – by 2020, over two million tons of NO_x emissions avoided per year, 4,000 premature deaths prevented annually and tens of thousands of respiratory illnesses prevented.

Most large trucks and buses are powered by diesel engines. They can emit high levels of NO_x and PM. Although cars were regulated first, diesel truck and bus manufacturers have had to comply with a series of increasingly more stringent standards beginning in the late 1980's. This Administration has affirmed and is supporting a major new program that has recently been established to protect public health and the environment while ensuring that diesel trucks and buses remain a viable and important part of the Nation's economy. Called the Clean Diesel Program, it begins in 2007, when the makers of diesel engines will for the first time install devices like catalytic converters on new trucks and buses to meet the emission performance standards. The environmental benefits of this program will be substantial. When these cleaner vehicles have replaced the current fleet, 2.6 million tons of NO_x emissions will be avoided every year, 8,000 premature deaths prevented annually, and 23,000 cases of bronchitis and 360,000 asthma attacks. These health benefits far outweigh the cost to produce the

cleaner engines and fuels.

The Clean Diesel Program will reduce emissions only from newly produced engines. But there are millions of older diesel trucks, buses and off-road equipment in use today, many of which spew noxious, black soot from their exhaust pipes. EPA has therefore initiated, in cooperation with manufacturers of diesel emission control systems, a major new voluntary initiative to install cost effective emission control equipment on older diesels. Through this innovative program, the Diesel Retrofit Program, the Agency to date has obtained commitments from businesses and municipalities that own fleets of trucks or buses to retrofit 85,000 vehicles with devices that will reduce exhaust emissions.

Of course, motorists share responsibility to maintain their vehicles properly. Inspection and maintenance (I/M) programs, currently operating in 56 metropolitan areas, are meant to identify polluting vehicles and lead to their repair. Today many states are re-structuring their I/M programs to efficiently incorporate the capabilities of so-called "onboard diagnostic (OBD) systems" that use the vehicle's onboard computer to speed the testing process, provide specific information to the technician to help get repairs done correctly, and maintain or improve the air quality benefits of an I/M program.

Cleaner Fuels

Let me now switch from cleaner vehicles to cleaner fuels. The first effort to address an environmental problem linked to fuel was the multi-year effort to phase down and eventually eliminate lead in gasoline. That successful action was followed by other programs to require oil refiners to produce cleaner gasoline. In the late 1980's refiners began to reduce the evaporation rate of gasoline nationwide during the summer months.

The 1990 amendments to the Clean Air Act established several new clean fuel programs. Much of the nation's progress on carbon monoxide can be attributed to the wintertime oxygenated fuels program, which began in 1992 in 30 cities. The 1990 amendments also established the reformulated gasoline (RFG) program, which was designed to serve several goals, including improving air quality and extending the gasoline supply through the use of oxygenates. Today, roughly 35 percent of this country's gasoline consumption is cleaner-burning RFG. The emission reductions which can be attributed to the RFG program are equivalent to taking 16 million cars off the road.

In two of the programs I mentioned earlier, Tier 2 and the 2007 Clean Diesel Program, EPA recognized the efficiencies of addressing vehicles and fuels as a system when establishing an emissions control program. Thus, in addition to setting strict exhaust emission standards for the vehicles and engines, we also required that cleaner, low sulfur gasoline and diesel fuel be available to enable those emission standards to be achieved. Sulfur is similar to lead in that it degrades the effectiveness of a catalytic converter. This lower sulfur gasoline will reduce emissions from all gasoline-powered highway vehicles, not just those meeting the tighter vehicle emissions standards. The Tier 2 and diesel regulations provide sufficient time for refiners to make the necessary modifications to their facilities before the low sulfur fuel is required. EPA has included a number of provisions that provide additional

flexibility to refiners, particularly small refiners.

Off-Road Engines

As emissions from highway vehicles are reduced, the potential for reductions from other sources must be evaluated. Therefore, in 1990 Congress gave EPA new authority to set emission limits for off-road engines and equipment. As a result, EPA has adopted emission control programs for the following off-road equipment: locomotives, marine vessels, outboard recreational boats, and small gasoline engines used in lawn and garden equipment.

The next major category of mobile source emissions to be addressed is large diesel engines used in construction, mining, airport and agricultural equipment. Even though modest emission requirements are in place for this equipment, EPA currently estimates that by 2020 the category will contribute over 10 percent of the total NO_x emissions inventory in a typical metropolitan area and 8 percent of the PM emissions. We believe taking steps to reduce emissions from these sources can be done cost effectively and provide significant public health and welfare benefits.

We are currently working with industry, state, public health organizations, and other stakeholders in developing a proposal. An important issue for consideration is the potential need to lower the sulfur levels in off-road diesel fuel to enable new exhaust control technology to be utilized on future engines. As we found with highway vehicles, this approach of comprehensively looking at the engines and fuel as a system is appropriate here as well. As an initial baseline for possible control strategies, we are using the standards for both engines and diesel sulfur level that were adopted as part of the highway diesel program. We are also analyzing emission credit trading program options and compliance flexibilities for small businesses, among other things. Additionally, EPA and OMB are working collaboratively on this rule as OMB shares our concern about the health effects of diesel emissions and the need to develop a strong rule to reduce emissions from off-road engines. We believe this collaboration will allow a more expedited rulemaking process. The EPA Administrator will, however, be the decision maker with respect to this rule, and retains sole authority to make final decisions about the content of the proposed and final regulations.

EPA is also working to help communities address vehicle emissions on a voluntary, non-regulatory basis. A new business-government partnership, called the Commuter Choice Leadership Initiative, focuses on reducing vehicle emissions and improving the way people get to and from work. EPA and DOT assist participating employers by offering technical assistance, public recognition, training, Web-based tools, and forums for information exchange. To participate, employers make a series of commitments, including ensuring a minimum level of employee participation and offering a series of commuter benefits. In return for offering these benefits, employers can reap the important benefits of helping to attract and retain employees, reduce the demand for limited or expensive parking, and exhibit leadership and corporate citizenship. Almost 300 companies, employing over 750,000 people, have joined the program since it was launched last year.

Protecting the Stratospheric Ozone Layer

EPA's Stratospheric Ozone Protection Program has played a landmark role in addressing one of the most pressing environmental issues of our time -- the depletion of the ozone layer. We can say with certainty and pride that our effort in the United States to protect the ozone layer is on track toward unqualified success. With the successful worldwide phaseout of ozone depleting substances, EPA estimates that 6.3 million U.S. lives will have been saved from fatal cases of skin cancer between 1990 and 2165, and that up to 300 million cases on non-fatal skin cancer and approximately 30 million incidences of cataracts will have been avoided.

To date, international cooperation to implement the Montreal Protocol on Substances that Deplete the Ozone Layer has led to global reductions in the production and use of ozone depleting substances (ODS), the results of which we can already see. Developed country production of CFCs, methyl chloroform, and carbon tetrachloride essentially ended, except for limited exemptions permitted under the Montreal Protocol, thus avoiding emissions of 400,000 metric tons of ODS. Developing countries as a whole are ahead of schedule in reducing their production, use, and emissions of ODS.

If the world community stays the course, we can expect to see the ozone layer recover in approximately 50 years. The prospect of identifying and solving a global environmental problem of this magnitude, within the span of a single lifetime, is nothing short of amazing. Let me tell you about the success we have had here and abroad.

Here at home, the U.S. is doing its part to ensure the recovery of the ozone layer. Working closely with industry, EPA has used a combination of regulatory, market based (i.e., a cap-and-trade system among manufacturers), and voluntary approaches to phase out the most harmful ozone depleting substances (ODS). And we're doing so more efficiently than either EPA or industry originally anticipated. The ODS phaseout for Class I substances was implemented 4-6 years faster, included 13 more chemicals, and cost 30 percent less than was predicted at the time the 1990 Clean Air Act Amendments were enacted.

The U.S. has not only "taken care of business" at home but has also played a key leadership role internationally. Through the Multilateral Fund set up under Presidents Reagan and Bush, the U.S. has led the effort toward long term agreements to dismantle more than two-thirds of developing country CFC production capacity and eliminate virtually all of developing country halon production capacity. Sales of US technologies, such as recycling, air conditioning, and refrigeration equipment and about \$80 million per year of sales of alternatives to ozone depleting substances have played an important role in this worldwide progress. While the final closing of related facilities depends on continued funding, we are confident that through continued U.S. involvement and investment in this area we will be able to fulfill our international obligations and keep recovery of the ozone layer within our sights.

With continued worldwide vigilance, full recovery of the ozone layer is predicted to occur in 50 years. In the near term, however, exposure to UV radiation and the subsequent health effects of

increased incidences of skin cancer and cataracts continues to be a very real problem. One American dies every hour from skin cancer and a mere one to two blistering sunburns can double one's chances of developing melanoma later on in life. With this knowledge, EPA created the SunWise Schools Program to teach children and their caregivers about sun safety. EPA expects to reach children in 17,000 U.S. schools by 2005.

We are proud of these achievements, but the job is not yet done. We have important work ahead of us such as the upcoming domestic phase outs of chemicals like methyl bromide (MBr) and hydrochlorofluorocarbons (HCFC) while ensuring that sufficient amounts are available for critical and essential uses. The budget includes \$10 million in EPA funding to help replenish the multilateral fund. Without a mechanism for facilitating developing country commitments to phaseout ozone depleting substances, we jeopardize recovery of the ozone layer, investments already made by U.S. industry in alternative technologies, and indeed the lives and health of Americans.

Reducing Risks from Air Toxics

Toxic air pollutants are pollutants known or suspected to present a threat of adverse human health effects such as cancer or birth defects, or adverse environmental effects. In order to control emissions of these pollutants, EPA since 1990 has issued 63 pollution standards affecting 105 industrial categories such as chemical plants, dry cleaners, coke ovens, and petroleum refineries. When fully implemented, these standards will eliminate nearly 1.5 million tons of air toxics and 2.5 million tons of particulate matter and smog-causing volatile organic compounds.

By contrast, in the preceding twenty years only seven hazardous air pollutant standards, eliminating 125,000 tons of toxics, had been put in place. In 1990, Congress directed EPA to issue technology- and performance-based standards on a source category basis to ensure that major sources of air toxics are well controlled. In essence these standards create a level playing field by requiring all major sources to achieve the level of control already being achieved by the better performing sources in each category.

The result is that we are reducing the large quantities of toxic air pollutants released into our air, in the aggregate and around industrial sources in populated areas. We will achieve additional reductions as we complete standards for more categories of major pollution sources. This approach is achieving substantial reductions in air toxics, but we recognize that it is not perfect; a drawback is that it focuses on the quantity of emissions while toxic pollutants vary substantially in the risk they pose. Congress gave EPA greater flexibility to target the greatest risks in the second phase of the air toxics program outlined in the 1990 amendments.

We are now in the early stages of implementing this second phase of the air toxics program, targeting particular problems such as elevated risks in urban areas, deposition of air toxics into the Great Lakes, and residual risks from already controlled sources. The underlying goal of this program is to improve air quality at the local, regional, and national levels while minimizing cost and reducing

unnecessary burden on states and the regulated community. Achievement of this goal would ultimately result in reduced public risk from exposure to air toxics or other environmental threats.

Virtually all of the transportation-related control programs I discussed earlier reduce toxic emissions as well as emissions of NAAQS pollutants or their precursors. For example, compared to 1990 levels, the programs we have in place today for highway vehicles, including Tier 2 and the 2007 diesel rule, will reduce emissions of four gaseous toxic pollutants by about 350,000 tons by 2020, a 75 percent reduction. Diesel particulate matter (PM) from highway vehicles will be reduced by 220,000 tons over the same time frame, for a 94% reduction.

Improving Visibility in our National Parks and Wilderness Areas

Having lived a good portion of my life within sight of the Front Range, within an hour of Rocky Mountain National Park, I have a personal appreciation for the importance of protecting the beautiful vistas of our great land from visibility degradation.

Haze, created by fine particles and other pollutants, often degrades visibility across broad regions and obscures views in our best known and most treasured natural areas such as the Grand Canyon, Yosemite, Yellowstone, Mount Rainier, Shenandoah, the Great Smokies, Acadia, and the Everglades. Despite improvements in recent years in some areas, visibility remains significantly impaired. In eastern parks, average visual range has decreased from 90 miles (natural conditions) to 15 - 25 miles, and on some days, visibility is less than 10 miles. In the West, visual range has decreased from 140 miles to 35 - 90 miles. Visibility for the worst days in the West is similar to days with the best visibility in the East.

In July 1999, EPA published a long awaited regional haze rule that calls for long-term protection of and improvement in visibility in 156 national parks and wilderness areas across the country. Because haze is a regional problem, EPA has encouraged states and tribes to work together in multi-state planning organizations to develop potential regional strategies for the future. Five of these regional planning organizations are now operational. EPA will be working closely with these organizations to provide guidance during this process, just as it did with the many states and tribes involved in the Grand Canyon Visibility Transport Commission.

Over the next several years, states are required to establish goals for improving visibility in each of these 156 areas and adopt emission reduction strategies for the period extending to 2018. States have flexibility to set these goals based upon certain factors, but as part of the process, they must consider the rate of progress needed to reach natural visibility conditions in 60 years. To assist in evaluating regional strategies and tracking progress over time, we have continued to work with the states and federal land managers to expand our visibility and fine particle monitoring network to 110 of these areas.

One of these regional planning organizations is the Western Regional Air Partnership, or WRAP. The regional haze rule specifically takes into account the WRAP's efforts to develop and carry out a strategy for improving visibility in 16 scenic areas in the western United States. Currently, EPA is

proposing to approve, and to incorporate into the regional haze rule, an element of this strategy that addresses stationary sources of sulfur dioxide. The WRAP's innovative approach establishes regional sulfur dioxide emissions targets, gives Western sources the opportunity to meet these targets through voluntary measures, and provides for an enforceable backstop emissions trading program that will ensure that the targets are met if the voluntary measures do not succeed.

EPA is moving forward to carry out the CAA requirements for "best available retrofit technology," or BART, at certain older facilities that have been grandfathered from new source requirements under the Act. These older facilities emit large amounts, in the millions of tons, of visibility-impairing pollutants. For many, cost-effective control measures are available. EPA was disappointed with a May 24, 2002, court ruling by the D.C. Circuit which questioned some of the BART requirements in the 1999 regional haze rule. We are asking for re-hearing of this decision, and we are actively pursuing options in the event that re-hearing is not granted, or if EPA does not prevail upon re-hearing. Implementation of the BART requirement may require us to re-propose the BART requirement, and to re-propose guidelines for States to follow in identifying BART sources and controls. EPA intends to publish whatever rule changes are needed to carry out this important requirement of the Act.

III. Today's Challenges

As the preceding discussion shows, the Clean Air Act has an impressive track record, showing progress on nearly all fronts addressed by the 1970 Act and its subsequent amendments. Even so, some serious challenges remain. I will discuss the most significant of these challenges, including fine particle and ozone pollution, environmental concerns such as acid and nitrogen deposition, and toxic air pollution.

Reducing Fine Particles and Smog

Two of the greatest air quality challenges facing us today are reducing levels of fine particles and ground-level ozone (smog) to meet the more health protective air quality standards EPA issued in 1997 based on an exhaustive review of new scientific evidence on effects of these pollutants. Fine particles and 8-hour ozone levels appear to be of concern in many areas of California and across broad regions of the eastern United States.

On March 26, after years of litigation and a favorable Supreme Court decision, the U.S. Court of Appeals for the D.C. Circuit rejected all remaining legal challenges to both standards. The Administration vigorously defended the standards before the court.

As Administrator Whitman said, the court decision "is a significant victory in EPA's ongoing efforts to protect the health of millions of Americans from the dangers of air pollution. EPA now has a clear path to move forward to ensure that all Americans can breathe cleaner air." Now EPA will work in partnership with state, tribal and local governments to implement those standards.

We believe that fine particles pose the greatest public health risks of any regulated air pollutant. Fine particles are associated with tens of thousands of premature deaths per year in people with heart and lung diseases. Fine particles aggravate heart and lung disease, leading to increased hospitalizations, emergency room and doctor visits, use of medication, and many days of missed school and work. Fine particles have also been associated with respiratory symptoms such as coughing and wheezing and chronic bronchitis, as well as heart beat irregularities and heart attacks. And fine particles are a year-round problem.

Over the last 5 years, EPA has invested over a quarter billion dollars into research on the health effects of PM and the development of cost-effective implementation strategies to meet the PM standards. In doing this, we have listened carefully to the advice of an expert panel of the National Academy of Sciences and have coordinated our approach with federal and non-federal partners.

Ozone smog also is a significant health concern, particularly for children and people with asthma and other respiratory diseases who are active outdoors in the summertime. Ozone can cause increased transient respiratory symptoms, such as coughing and pain when breathing deeply, as well as transient reductions in lung function and inflammation of the lung. Ozone has also been associated with increased hospitalizations and emergency room visits for respiratory causes. Repeated exposure over time may permanently damage lung tissue.

We are determined to move expeditiously to achieve the health benefits of the standards. However, there is some preliminary work that must be completed before we can designate areas under the new standards, which starts the clock on many implementation requirements.

Before the PM_{2.5} nonattainment areas can be designated, three years of data are needed to determine whether an area is not attaining the standard. We have 3 years of quality-assured data that will soon be sent to the states. It is difficult to project a precise schedule for designating PM_{2.5} nonattainment areas, but I have asked my staff to determine how we can move forward expeditiously in light of the public health threat posed by fine particles. The Transportation Equity Act of 1998 requires states and EPA complete the process within two years after three years of monitoring data are available, or no later than December 31, 2005. Based on a preliminary two-year data set from 250 counties, more than 130 areas are expected to violate the annual standard. About 100 of these areas also appear to be not attaining the 8-hour ozone standard, and it will make sense for states to consider both ozone and PM in devising attainment strategies.

As we work with the states on PM_{2.5} designations, we also will be working with our governmental partners and stakeholders to develop an implementation strategy. In the East, high PM_{2.5} levels are attributed to regionally high sulfate and nitrate concentrations (primarily from power plants and motor vehicles) combined with local urban emissions of other pollutants. President Bush's proposed Clear Skies Act (discussed in more detail below), which would cut emissions from power generators through a cap-and-trade program, would substantially reduce the number of areas with unhealthy levels of fine particles. Regional strategies and/or national rules should be the first step toward addressing sulfates

and nitrates, particularly in the East. A number of already-adopted mobile source programs, such as Tier II standards for cars and light trucks, reduced sulfur in fuel, and standards for new heavy duty diesel engines, will also help reduce local emissions. However, additional local strategies will need to be developed for certain cities to address their particular mix of emissions sources also contributing to the problem. For example, a diesel engine retrofit program (e.g. for buses) appears to be one obvious local action that cities can take to protect the public from PM-2.5 health effects now.

8-Hour Ozone

We are actively working on several fronts to prepare the way for implementation of the 8-hour ozone standard. Because the Supreme Court ruled that EPA's original implementation strategy was unlawful, EPA is working with state and stakeholders to develop a new approach that will be adopted through rulemaking. The new approach will be proposed this summer and finalized a year after its proposal. We also are working to complete our response to the May 1999 remand from D.C. Circuit concerning UVB radiation, and anticipate a final rule this year. EPA plans to designate areas for the 8-hour ozone standard no earlier than the end of 2003.

There are over 300 counties measuring exceedances of the 8-hr ozone standard. Existing EPA programs, including national motor vehicle programs and the NOx SIP call, are projected to help many of the new nonattainment areas meet the standard over the next few years. States and localities also will need to do their part to reduce emissions from local pollution sources.

Protecting Our Environment and Resources

The same emissions that form fine particles and ozone, causing public health risks, also contribute to environmental and resource damage. One example is visibility degradation, which I already have discussed.

In addition, modeling results and recent studies of ecological response to emissions reductions under the Acid Rain Program indicate that Title IV is moving us in the right direction, but not far enough. For example, scientists in the Shenandoah National Park discovered the first observed disappearance of a fish population due to acidification. Researchers in that region claim that reductions of sulfate deposition of 70 percent or greater from 1991 levels are necessary to prevent further acidification of Virginia brook trout streams.

A recent assessment of acid deposition and its effects in the northeast by the Hubbard Brook Research Foundation reflects a similar finding. Researchers found no significant improvement in lake and stream water quality in the Adirondack and Catskill Mountains, even following recent decreases in acid rain. The study concluded that full implementation of the 1990 Amendments will not result in substantial recovery in acid-sensitive ecosystems in the northeast. Instead, it concluded that further reductions of SO₂ emissions from power generation are necessary to achieve recovery of aquatic ecosystems in this region.

Recent studies also demonstrate that nitrogen deposition is an increasing concern in many regions of the country. For example, EPA's recently released national coastal condition report found deteriorating water quality in many areas of the eastern U.S. and Gulf Coasts, much of it due to increasing nitrogen pollution. Other researchers have found symptoms of "nitrogen saturation" in forest ecosystems in diverse areas of the country, including the Front Range of the Colorado Rockies, forests in southern California, and forests along the Appalachian Mountain chain of the eastern U.S. As a result, forest soils lose nutrients, forests are less productive, and streams and lakes continue to get more acidic.

Taking into consideration the ongoing concern about acid deposition, President Bush's Clear Skies Act would address these problems by cutting emissions of SO₂ and NO_x from power generators through a cap-and-trade program. This program is outlined briefly in the next section below.

Air Toxics Challenges

Two important air toxics challenges are elevated risks from the multiple toxic pollutants emitted into urban airsheds, and health risks from mercury, a persistent toxic substance that accumulates in the food chain.

Urban Air Toxics Strategy

Air toxics can pose special threats in urban areas because of the large number of people and the variety of sources of toxic air pollutants. Individually, some of these sources may not emit large amounts of toxic pollutants. However, all of these pollution sources combined can potentially pose significant health threats. Under the Clean Air Act, EPA is required to develop an Integrated Urban Air Toxics Strategy that addresses air toxics in urban areas, looking collectively at emissions from large and small industrial and commercial operations, on-road and off-road vehicles, as well as indoor air sources. We are also concerned about the impact of the toxic emissions on minority and low income communities, which are often located close to industrial and commercial urbanized areas.

We will also assist State, local, and tribal agencies in making their own assessments and decisions on risk strategies by providing them tools, guidance, and training, while continuing to develop national standards. We are also exploring new approaches for identifying flexible, less expensive methods for reducing emissions. In addition, to better understand local risk, we will collect and analyze data from on-going community projects to provide a centralized information database. We will also continue to participate in projects such as in Cleveland, Ohio. This integrated approach will allow EPA and state, local, and tribal governments the ability to cooperatively address specific risks and administer direct and cost efficient controls in specific "hot spots" or target areas.

Mercury

Mercury is a potent toxin that causes permanent damage to the brain and nervous system, particularly in developing fetuses, depending on the level of ingestion. Most exposure comes through

eating contaminated fish. Currently 42 states have advisories warning people to limit or avoid intake of recreationally caught fish due to mercury contamination. Even so, almost 400,000 children are born each year to mothers whose blood mercury levels exceed the reference dose established by EPA, which builds in a margin of safety.

Recent actions to reduce mercury emissions from medical waste incinerators and municipal waste combustors are significantly reducing emissions of mercury. In fact, full implementation and compliance with medical waste incinerator and municipal waste combustor regulations will result in significant mercury emission reductions from these important sources. Power generation is now the largest uncontrolled source of mercury emissions, contributing approximately 35% of the total anthropogenic mercury emissions in this country. As discussed below, President Bush's Clear Skies Initiative would put a cap on mercury emissions from power generators.

IV. FUTURE IMPROVEMENTS

To meet the continuing challenge of providing healthy air efficiently and cost-effectively, EPA is working to improve clean air regulation in several ways. First, as mentioned above, EPA is developing an off-road rule to reduce emissions from heavy equipment, such as construction equipment. Second, EPA and the Administration, building on the success of the acid rain program, have developed the proposed Clear Skies Act to reduce three key pollutants from power plants by 70%. Third, EPA is working on improvements to the NSR program to make the program work more efficiently and provide environmental benefits. I have already discussed the off-road rule earlier in this testimony. I will now summarize the status of our efforts on Clear Skies and New Source Review.

Clear Skies

The major legislative initiative we are proposing to help address the nation's remaining clean-air challenges is the Clear Skies Initiative, which would set strict, mandatory caps to drastically reduce emissions of three harmful air pollutants from the electric power sector: sulfur dioxide (SO₂), nitrogen oxide (NO_x), and mercury (Hg). Announced by President Bush on February 14th of this year, the proposal was introduced in the Senate as the Clear Skies Act by Senator Bob Smith in late July. Unlike other bills on this issue, the Clear Skies Act is a complete package that could be enacted immediately upon passage by Congress. If enacted, it will be the most significant improvement to the Clean Air Act in more than a decade.

To continue our significant improvement in air quality over the past twenty years, we need to take the next step in reducing SO₂, NO_x, and mercury. The power sector is a primary source of these pollutants, contributing 63% of SO₂ emissions and 22% of NO_x emissions in 2000, and 37% of man-made mercury emissions in 1999. Clear Skies would reduce emissions by an additional 70% from today's levels to dramatically improve air quality and public health across the nation. Clear Skies would ensure that environmental goals are achieved and sustained over the long term, even while energy use increases.

Implementation of the Clear Skies Act would significantly mitigate our nation's major air pollution related health and environmental problems. SO₂ and NO_x emissions react in the atmosphere to form nitrates and sulfates, a substantial fraction of fine particle pollution. These reductions in fine particles would make great strides to prevent incidences of premature mortality, aggravation of respiratory and cardiopulmonary illnesses, and diminished lung function. Americans would experience fewer lost work days, school absences, hospitalizations and emergency room visits. These emission reductions would also improve visibility in national parks and wilderness areas and alleviate damage to ecosystems, fish and other wildlife. NO_x is also a key contributor to the formation of ground-level ozone, and the NO_x reductions from the Clear Skies Act would contribute significantly to attainment of the National Ambient Air Quality Standards for ozone and provide corresponding public health benefits.

EPA's modeling shows that nationwide reductions of these three harmful pollutants will have striking results. Every part of the country where power plants contribute significantly to air pollution, most notably the Northeast, Southeast, and Midwest, would see vast improvements in air quality. Clear Skies, by dramatically reducing polluting emissions from power generators, would be the most significant improvement to the Clean Air Act since 1990, and one of the most comprehensive and ambitious efforts ever to clean up air pollution from power plants.

Public Health Benefits of Clear Skies

The Clear Skies Act is projected to achieve tremendous public health benefits. Concentrations of fine particles, a major cause of human health impacts from power plants, would decrease by more than 20% from current levels in large areas of the East and Midwest. The Clear Skies Act would achieve its fullest measure of benefits in the year 2020, but it would also bring significant early benefits in 2010. Although placing a dollar value on improvements in human health is challenging, our best estimate for the annual benefits from Clear Skies is as follows:

- * Total economic benefits in 2010 would be approximately \$44 billion – \$43 billion in health benefits and \$1 billion in visibility benefits. (An alternative estimate, using different assumptions, would result in approximately \$5 billion in health benefits in 2010.)
- * By 2010, Clear Skies would prevent approximately 6,000 premature deaths annually. (An alternative estimate, using different assumptions, would result in approximately 3,800 premature deaths prevented annually in 2010.)
- * Total economic benefits in 2020 would be approximately \$96 billion – \$93 billion in health benefits and \$3 billion in visibility benefits. (An alternative estimate, using different assumptions, would result in approximately \$11 billion in health benefits in 2020.)
- * By 2020, Clear Skies would prevent approximately 12,000 premature deaths annually. (An alternative estimate, using different assumptions, would result in approximately 7,000 premature deaths prevented annually in 2020.)

These health and visibility benefits, totaling nearly \$100 billion annually, far outweigh the estimated \$6.5 billion dollar cost of the program. Even under an alternative estimate, which values the health and visibility benefits of Clear Skies at approximately \$14 billion per year in 2020, the benefits substantially outweigh the costs. Additional health and environmental benefits cannot currently be quantified or monetized due to gaps in scientific capabilities. Nevertheless these benefits, such as reduced human exposure to mercury and fewer acidified lakes, are expected to be significant and to increase the total benefits of the Clear Skies Act.

The Clear Skies Act would help areas populated by tens of millions of people to meet the national requirements for healthy air in 2020. Compared with the situation where existing Clean Air Act regulations are implemented (and no new state or federal regulations are adopted), Clear Skies would bring more than 50 additional counties -- home to approximately 21 million people -- into attainment with the annual fine particle standard. Similarly, 8 additional counties, home to 4 million people, would come into attainment with the 8-hour ozone standard.

There would also be substantial environmental benefits under the Clear Skies Act by 2020. Compared to current conditions, the Clear Skies Act would deliver the following benefits (in conjunction with existing Clean Air Act regulations):

- * improve visibility in a large portion of the East and Midwest by 2-3 deciviews from current levels (a one deciview change translates to a noticeable change in visibility for most individuals);
- * improve visibility by more than 3 deciviews in areas of the southern Appalachian Mountains (e.g. Great Smoky Mountain National Park);
- * reduce sulfur deposition (one component of acid deposition) over much of the sensitive eastern U.S. by 30-60%;
- * reduce nitrogen deposition (the other component of acid deposition) over much of the eastern U.S., including sensitive forests and coastal areas, by 60% or more;
- * virtually eliminate the problem of chronic acidification in lakes in the Adirondack mountains of northern New York;
- * reduce Americans' risk of exposure to mercury by substantially decreasing mercury deposition.

The Clear Skies Act is designed to encourage early emissions reductions. Under the Clear Skies Act, over the next decade we would achieve significant SO₂ and NO_x emissions reductions that we do not anticipate achieving under the current Clean Air Act. As a result, by 2010, Clear Skies is projected to result annually in 6000 fewer premature deaths and 8 million fewer days when Americans suffer from respiratory-related symptoms.

These early reductions would also accelerate the implementation of our national health-based air quality standards for fine particles and ozone. The Clear Skies Act would result in a substantial number of counties meeting the fine particle and 8-hour ozone standards sooner than they would under the existing Clean Air Act.

Certainty of Environmental Progress

Clear Skies closely follows the approach used in one of America's most effective clean air programs, the 1990 Clean Air Act's Acid Rain Program, which I discussed earlier in this testimony. As a recent article in Fortune Magazine stated, "the success of the SO₂ program has convinced almost everyone that trading can be a useful environmental policy." ("Hog Wild for Pollution Trading: Why Environmental Markets Are Becoming a Very Big Deal," Fortune, September 2, 2002.) The results of the SO₂ cap and trade program have been dramatic – and unprecedented. Compliance began in 1995 and is now in its eighth year. From 1995-1999, the first phase of the Acid Rain Program, annual SO₂ emissions from the largest, highest-emitting sources dropped by nearly 5 million tons from 1980 levels. These significant reductions were an average of 25% below required emission levels, resulting in earlier achievement of human health and environmental benefits.

Like the Acid Rain Program, the Clear Skies Act would allow sources to trade emissions under each cap. This design has demonstrated its ability to protect environmental integrity while providing a host of positive incentives, including early reductions and development of innovative technologies. The cap on emissions and significant automatic penalties for noncompliance guarantee that environmental goals are achieved and sustained, while stringent emissions monitoring and reporting requirements make flexibility possible. By using this proven, market-based approach, Clear Skies would dramatically reduce air pollution from power plants quickly and cost-effectively, keeping electricity prices affordable and protecting America's health and environment.

New Source Review Improvement

There has been longstanding agreement among virtually all interested parties that the NSR program for existing sources can and should be improved. For well over ten years, representatives of industry, state and local agencies, and environmental groups have worked closely with EPA to find ways to make the program work better. In 1996, EPA proposed rules to amend several key elements of the program. In 1998, EPA sought additional public input on related issues. Since 1996, EPA has had countless discussions with stakeholders and has invested substantial resources in an effort to develop final revisions to the program. Between the 1996 proposal and January 2001, EPA held two public hearings and more than 50 stakeholder meetings. Environmental groups, industry, and state, local and federal agency representatives participated in these many discussions.

In 2001, the National Energy Policy Development Group asked EPA to investigate the impact of NSR on investment in new utility and refinery generation capacity, energy efficiency and environmental protection. During this review, the Agency met with more than 100 groups, held four public meetings

around the country, and received more than 130,000 written comments. EPA issued a report to President Bush on June 13 in which we concluded that the NSR program does, in fact, adversely affect or discourage some projects at existing facilities that would maintain or improve reliability, efficiency, and safety of existing energy capacity. This report lends strong support to the decade-long effort to improve the NSR program.

We now believe that it is time to finish the task of improving and reforming the NSR program. At the same time that we submitted our report to the President, we published a set of recommended reforms that we intend to make to the NSR program. These reforms are designed to remove barriers to environmentally beneficial projects, provide incentives for companies to install good controls and reduce actual emissions, provide greater specificity regarding NSR applicability, and streamline and simplify several key NSR provisions. We plan to move ahead with this rulemaking effort in the very near future. We look forward to working with you during this important effort. The proposed improvements are summarized below.

Summary of Improvements

Congress established the New Source Review Program in order to maintain or improve air quality while still providing for economic growth. The recommended reforms announced in June, 2002, will improve the program to ensure that it is meeting these goals. These reforms will:

- * Provide greater assurance about which activities are covered by the NSR program;
- * Remove barriers to environmentally beneficial projects;
- * Provide incentives for industries to improve environmental performance when they make changes to their facilities; and
- * Maintain provisions of NSR and other Clean Air Act programs that protect air quality.

The following NSR reforms, all of which were originally proposed in 1996, have been subject to extensive technical review and public comment:

- * **Pollution Control and Prevention Projects:** To encourage pollution control and prevention, EPA will create a simplified process for companies that undertake environmentally beneficial projects. NSR can discourage investments in certain pollution control and prevention projects, even if they are environmentally beneficial.
- * **Plantwide Applicability Limits (PALs):** To provide facilities with greater flexibility to modernize their operations without increasing air pollution, a facility would agree to operate within strict site-wide emissions caps called PALs. PALs provide clarity, certainty and superior environmental protection.

- * **Clean Unit Provision:** To encourage the installation of state-of-the-art air pollution controls, EPA will give plants that install clean units operational flexibility if they continue to operate within permitted limits. Clean units must have an NSR permit or other regulatory limit that requires the use of the best air pollution control technologies.

- * **Calculating Emissions Increases and Establishing Actual Emissions Baseline:** Currently, the NSR program estimates emissions increases based upon what a plant would emit if operated 24 hours a day, year-round. This can make it difficult to make certain modest changes in a facility without triggering NSR, even if those changes will not actually increase emissions. This common-sense reform will require an evaluation of how much a facility will actually emit after the proposed change. Also, to more accurately measure actual emissions, account for variations in business cycles, and clarify what may be a more representative period, facilities will be allowed to use any consecutive 24-month period in the previous decade as a baseline, as long as all current control requirements are taken into account.

EPA also intends to propose three new reforms that will go through the full rulemaking process, including public comment, before they are finalized. These include:

- * **Routine Maintenance, Repair and Replacement:** To increase environmental protection and promote the implementation of routine repair and replacement projects, EPA will propose a new definition of routine repairs. NSR excludes repairs and maintenance activities that are routine, but a multi-factored case-by-case determination must currently be made regarding what repairs meet that standard. This has deterred some companies from conducting certain repairs because they are not sure whether they would need to go through NSR. EPA is proposing guidelines for particular industries to more clearly establish what activities meet this standard.

- * **Debottlenecking:** EPA is proposing a rule to specify how NSR will apply when a company modifies one part of a facility in such a way that throughput in other parts of the facility increases (i.e., implements a "debottlenecking" project). Under the current rules, determining whether NSR applies to such complex projects is difficult and can be time consuming.

- * **Aggregation:** Currently, when multiple projects are implemented in a short period of time, a detailed analysis must be performed to determine whether the projects should be treated separately or together (i.e., "aggregated") under NSR. EPA's proposal will establish two criteria that will guide this determination.

An important consideration to keep in mind is that the NSR program is by no means the primary regulatory tool to address air pollution from existing sources. The Clean Air Act provides authority for several other public health-driven and visibility-related control efforts: for example, the National Ambient Air Quality Standards (NAAQS) Program implemented through enforceable State Implementation Plans, the NO_x SIP Call, the Acid Rain Program, the Regional Haze Program, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) program, etc. Thus, while NSR was designed by

Congress to focus particularly on sources that are newly constructed or that make major modifications, Congress provided numerous other tools for assuring that emissions from existing sources are adequately controlled.

In summary, the NSR reforms will remove the obstacles to environmentally beneficial projects, simplify NSR requirements, encourage emissions reductions, promote pollution prevention, provide incentives for energy efficient improvements, and help assure worker and plant safety. Overall, our reforms will improve the program so that industry will be able to make improvements to their plants that will result in greater environmental protection without needing to go through a lengthy permitting process. Our actions are completely consistent with key provisions of the Clean Air Act designed to protect human health and the environment from the harmful effects of air pollution.

In closing, I want to reemphasize that we are working to refine and extend an integrated approach to dealing with the remaining air quality problems that face this nation. This integrated approach begins with continuing and refining the programs that have proved so successful, such as the NAAQS implemented through enforceable State Implementation Plans, the NO_x SIP Call, the Federal Motor Vehicle Control Program, the Acid Rain program, the Regional Haze program, and the National Emissions Standards for Hazardous Air Pollutants. The approach builds on this base by adding new elements, such as the new regulation we are developing to reduce emissions from heavy-duty off-road engines and the Clear Skies Act to reduce emissions from power plants. We are also working to refine existing elements, such as the New Source Review program, to make the program work more efficiently while providing environmental benefits.

Thank you. I would be happy to answer any questions that you may have.