TESTIMONY OF
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BEFORE THE
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SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY
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Good morning, Chairman Carper and members of the Subcommittee on Clean Air and Nuclear Safety. I appreciate the opportunity to appear before you today to discuss the Environmental Protection Agency's (EPA) proposal to revise the National Ambient Air Quality Standards (NAAQS) for ground-level ozone.

INTRODUCTION

President Bush has said that breakthroughs in science and technology will help us become better stewards of the environment. I am proud of the work that EPA has been doing to promote the science and apply the technology that is helping protect our environment and improve our lives.

The air we breathe in America has consistently improved over the past 30 years. Each year, EPA looks at emissions that impact the ambient concentrations of the criteria pollutants. These annual emissions estimates are used as one indicator of the effectiveness of our programs. Between 1970 and 2006, total emissions of the six principal air pollutants dropped by 54 percent. During that same time period our nation continued to grow – gross domestic product increased 203 percent, vehicle miles traveled increased 177 percent, energy consumption increased 49 percent, and U.S. population grew by 46 percent. This success has not happened by accident. By promulgating requirements and implementing various Clean Air Act programs, and by advancing the state of our scientific understanding, EPA and its partners are continuing to make progress in reducing air pollution from both mobile and stationary sources.

The Clean Air Act requires EPA to set national ambient air quality standards for pollutants that can be reasonably anticipated to endanger public health or welfare. Under the Act, EPA develops human health-based and environmentally-based air quality criteria (which evaluate and integrate the latest scientific information), for the six so-called "criteria pollutants." EPA uses the air quality criteria in setting the acceptable ambient levels for the pollutant – the NAAQS. Primary standards for these pollutants protect human health with an adequate margin of safety while secondary standards protect public welfare (that is, protect against damage to the environment or to property). EPA is required to periodically review the standards and the scientific basis of the standards to determine whether revisions are appropriate.

Ground-level ozone, commonly referred to as smog, is one of the six criteria pollutants for which EPA has established national ambient air quality standards. Ozone is rarely emitted directly into the air but is formed by the reaction of volatile organic compounds (VOCs) and nitrogen oxides (NOx) in the presence of sunlight. VOCs are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, consumer and commercial products, other industrial sources, and biogenic sources. NOx is emitted from motor vehicles, power plants, and other sources of combustion. Changing weather patterns contribute to yearly differences in ozone concentrations from region to region. Ozone and the pollutants that form ozone can also be transported into an area from pollution sources found hundreds of miles upwind.

By working effectively with our state, local, and industry partners, we have made tremendous progress in reducing ambient concentrations of ozone throughout the United States. Since 1980, national average levels of ozone pollution have dropped by more than 20 percent, and in just the last three years, more than half of the communities out of attainment for ozone moved into attainment and now meet the current standards.

PROPOSAL SUMMARY

Since EPA last updated the ozone standards in 1997, researchers have been working to better understand how ozone affects human health and the environment. In fact, more than 1,700 studies examining the relationship between ozone exposure and human health and the environment have been published over the past decade. Many of these studies have been undertaken under the auspices of EPA's own research programs.

Some of these studies corroborate previous clinical findings showing health effects caused by exposure to ozone, while others report effects at ozone levels below the current standard. Some new studies of people with asthma indicate that they experience, relative to what was previously known, larger and more serious responses to ozone that take longer to resolve. Furthermore, new epidemiological studies, including new multi-city studies, strengthen EPA's confidence in the associations between increasing ozone exposures and health effects, including increased asthma medication use, school absenteeism, and premature mortality in those with preexisting heart and lung disease.

An extensive scientific review has preceded this proposal involving both EPA scientists and our Clean Air Scientific Advisory Committee, some of the most talented scientists in the world. I value their advice and I fully respect their judgment of the strength of the science and their views on the appropriate level at which to set NAAQS for ozone. In the course of developing this proposal, I personally spent considerable time with EPA scientists reviewing and discussing the information that has been collected.

Primary Standard

Based on the large body of evidence concerning the public health impacts of ozone pollution, including new evidence concerning effects at ozone concentrations below the level of the current standard, I proposed that the current standard does not protect public health with an adequate margin of safety

and should be revised to provide additional public health protection, particularly for those with asthma or other lung diseases, adults who are active outdoors, and the youngest and oldest members of our population.

This decision was based on careful consideration of the conclusions contained in the Criteria Document, the rationale and recommendations contained in the Staff Paper, the advice and recommendations from the CASAC, and public comments to date. The current primary NAAQS for 8-hour ozone established in 1997 is 0.08 parts per million (ppm) – effectively 0.084 ppm because of our rounding conventions. After considering the advice from EPA's scientists and our Clean Air Scientific Advisory Committee, I proposed to set a standard within the range of 0.070 to 0.075 ppm. This proposal marks the beginning of an open public comment process, during which EPA is inviting comment on a range of primary standard levels from as low as 0.060 parts per million up to the level of the current standard, 0.084 ppm.

EPA is accepting comment on levels for a primary ozone standard that are outside of the specific range of the standard I proposed. While the proposal language addresses in detail our reasons for proposing 0.070 to 0.075 ppm, EPA scientists concluded that it was appropriate for me to consider a range of standards levels from somewhat below 0.080 ppm down to as low as 0.060 ppm. I am also aware of the diversity of views held by various stakeholders concerning what might constitute appropriate levels for the standard. I understand that some support a standard set lower than the range proposed and some support a higher level than I proposed or retaining the existing standard. Given such views, I believe it is prudent public policy to ask for comment specifically on a wider range. Doing so allows us to benefit from the input of the public, including the many scientists in the field who are not part of the advisory committee or the EPA staff. I fully welcome information from the public addressing whether there are other interpretations of the science or other public health policy judgments that would suggest different levels than those I put forward in the proposal.

Secondary Standard

I also proposed two alternatives for a secondary ozone NAAQS to improve protection for plants, trees, and crops. One option would be to set the standard identical to the primary standard, as we have done in the past. The other option, however, would be to set a new, separate secondary standard that addresses the kinds of ozone exposures that studies indicate can harm vegetation. This option reflects the available science indicating that cumulative, repeated exposures to ozone are an important way ozone can harm vegetation, compared to the short-term, higher exposures that can harm people.

This proposed option, known as a "W126 form," is a cumulative, seasonal standard. It focuses on ozone levels occurring over every hour from 8AM to 8PM during the summer growing season (specifically the 3-month period with the highest ozone concentrations). The form of the standard is expressed as a sum of weighted hourly ozone concentrations, and under this option, I am proposing to set that standard within a range of 7 to 21 parts per million-hours, as well as asking for comment on variations of this form and level.

NEXT STEPS

We will accept public comment for 90 days after the proposal is published in the Federal Register, and plan to hold five public hearings. These hearings will be held in Los Angeles and Philadelphia on August 30, and in Chicago, Atlanta, and Houston on September 5. This schedule puts us on track to issue final standards by March 12, 2008.

As to the implementation of any new or revised ozone standards, States have primary responsibility for ensuring attainment and maintenance of ground-level ozone standards once EPA has established them. Thus, if I ultimately decide to set final standards for ozone that are different from the current standards, EPA would work with states and other government entities to identify

geographical areas that fail to meet the new standards. Under the timelines specified in the Clean Air Act and the Agency's past experience, I would expect that designations of areas that do not meet any new or revised standard would occur in 2010. By 2013, States would then be required to submit, for EPA approval, state implementation plans (SIPs) that provide for the attainment and maintenance of such standards through control programs directed to emission sources. Areas designated as nonattainment would then have between 2013 and 2030 to meet any new or revised standard, depending on the severity of their air quality problem.

CONCLUSION

Once again, I want to thank you for the opportunity to be with you here today. I would be pleased to answer your questions.