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BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
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Good morning, Chairman Waxman and members of the Oversight and Government Reform Committee. I appreciate this opportunity to appear before you today to discuss the Environmental Protection Agency's (EPA) recent decision to significantly strengthen the National Ambient Air Quality Standards (NAAQS) for ground-level ozone. These changes will improve protection of both public health and sensitive vegetation and ecosystems.

INTRODUCTION

The air we breathe in America has improved considerably over the past 30 years. Each year, EPA looks at emissions that impact the ambient concentrations of the common air pollutants, including ground-level ozone, as one indicator of the effectiveness of our programs. Between 1970 and 2006, total emissions of the six common 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. Since 1980, we have reduced ozone levels nationwide by more than 20 percent. This success in reducing air pollution has not happened by accident. By 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.

As you know, 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 welfare-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 are to be set at a level requisite to protect human health with an adequate margin of safety while secondary standards are to be set at a level requisite to protect public welfare (that is, effects on soils, water, crops, man-made materials, vegetation, etc.). EPA is required to periodically review the standards and their scientific bases to determine whether revisions are appropriate.

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. Varying weather conditions may contribute to yearly differences in ozone concentrations within and between regions. Geography also plays a role. Ozone and the pollutants that form it can be trapped near their sources by mountains or prevailing winds, or they can be transported hundreds of miles downwind.

Breathing ozone at elevated levels can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame the lining of the lungs. Repeated exposure may permanently scar lung tissue. In some people, these effects can lead to more frequent doctor visits, school absences, and increased emergency room visits and hospital admissions. The National Academies of Science recently found that "short-term exposure to ambient ozone is likely to contribute to premature deaths." Finally, elevated levels of ground-level ozone can also damage vegetation and ecosystems.

In 1997 EPA established 8-hour primary and secondary ozone standards at a level of 0.08 parts per million (ppm). Because ozone is measured out to three decimal places,

the standards effectively became 0.084 ppm as a result of rounding. As you know, in March I announced that in my judgment these standards were no longer adequate to protect public health and welfare. Before explaining my decision, I would like to describe the extensive process we used to review the ozone NAAQS.

OZONE NAAQS REVIEW PROCESS

The ozone NAAQS review process began with an assessment of scientific studies on ozone by EPA's Office of Research and Development. This assessment was published as an *Air Quality Criteria Document for Ozone*, which explored the scientific data pertaining to the health and welfare effects associated with ozone exposure. EPA's Office of Air Quality Planning and Standards prepared both the *Ozone Health Risk Assessment* and the *Ozone Exposure Analysis Reports* which provided a quantitative assessment of health risks associated with exposure to ozone, along with related uncertainties. The same office then prepared the "staff paper" *Review of the National Ambient Air Quality Standards for Ozone: Policy Assessment of Scientific and Technical Information* which presented key policy-relevant scientific information, the results of the quantitative exposure and risk assessments, and a policy assessment that identified policy options, including ranges of standards, for my consideration.

The criteria document, risk and exposure assessments and staff paper all underwent extensive scientific and public review, including review by the Clean Air Scientific Advisory Committee (CASAC), an independent scientific advisory body established by the Clean Air Act. As part of its mandate, CASAC reviews and makes recommendations to EPA on the science supporting the standards under review. CASAC also advises EPA on the adequacy of the existing standards and revisions it believes would be appropriate. Based on the scientific assessments, and taking into account the recommendations of CASAC and public comments, I considered whether the current primary standard was requisite to protect public health with an adequate margin of safety and whether the current secondary standard was requisite to protect public welfare.

On June 20, 2007, I proposed that the 1997 ozone standards were not adequate and requested comment on several options for strengthening the standards. This proposal was extensively reviewed during a 90-day public comment period. EPA held five

public hearings around the country and received thousands of written comments on the proposal. I carefully reviewed CASAC's scientific advice and their policy views on the current standards and suggested revisions to them as well as the public comments EPA received on the proposed standards. While I am in general agreement with CASAC's views regarding the interpretation of the scientific evidence, there is no bright line clearly directing the choice of level, and the choice of what is appropriate is clearly a policy judgment entrusted to the Administrator.

FINAL RULE SUMMARY

After evaluating the results of more than 1,700 new scientific studies available for this review as reflected in the *Air Quality Criteria Document for Ozone*, I concluded that ozone causes adverse health effects below the level of the 1997 standard. This newly available evidence strengthened my confidence in the findings of the 1997 review and identified important new health endpoints associated with ozone exposure, including mortality, increased asthma medication use, school absenteeism, and cardiac-related effects. Furthermore, studies of asthmatics indicated that they experience more serious responses to ozone that last longer than responses in healthy individuals. In addition, new scientific evidence since the 1997 review of the ozone NAAQS indicates that ambient levels of ozone can result in visible foliage injury and biomass loss in sensitive trees and other vegetation in forests, parks and many other places. In short, current ozone air quality concentrations in many areas of the country – including some areas that meet the 1997 ozone standards – harm both human health and sensitive vegetation and ecosystems.

In light of this convincing evidence, I concluded that the 1997 standards were inadequate to protect public health and welfare and needed to be revised. Therefore, in the final rule, which I signed on March 12, 2008, I revised the 8-hour "primary" ozone standard, designed to protect public health, to a level of 0.075 ppm. I also strengthened the secondary ozone standard to the level of 0.075 ppm. Following the approach taken in 1997, I made the secondary standard identical to the revised primary standard.

In addition to changing the level of the standards from effectively 0.084 ppm to 0.075 ppm, I specified the level of the standard to the third decimal. I made this change in

recognition of the ability of the monitoring technology to measure ambient ozone concentrations to this level of precision.

In coordination with strengthening the nation's ozone standards, I updated the Air Quality Index (AQI) to reflect the new primary standard. The AQI is EPA's color-coded tool designed for use by tribal, state and local authorities to inform the public about daily air pollution levels in their communities. I am encouraging state and local areas to begin using the revised AQI advisory levels during this year's ozone season to ensure maximum public health protection on high pollution days.

In making the decision to revise the ozone NAAQS, I fully agreed with CASAC that the 1997 standards were not adequate to protect public health and welfare and needed to be revised. However, as provided by the Clean Air Act, the standard I judged to be requisite to protect the public health with an adequate margin of safety was different from CASAC's recommendation. Under the Act, CASAC is charged with reviewing both the national primary and secondary ambient air quality standards and the air quality criteria that are developed to support them, and recommending revisions as appropriate. I place great importance on the Committee's advice in making these decisions. However, the Clean Air Act clearly established that the ultimate decisions about retaining or revising a NAAQS must be made by the EPA Administrator after weighing the scientific evidence taking into account the results of the risk and exposure assessments, CASAC's advice, and public comment. As required by the Act, I have taken special care in explaining the rationale for my final decision in the preamble to the final ozone rule to identify and explain the points of departure from CASAC's recommendations.

The decision to revise the ozone NAAQS is a regulatory action that falls under the requirements of Executive Order (EO) 12866, issued by President Clinton in 1993. EO 12866 outlines the role of the White House and the Office of Management and Budget (OMB) in the centralized review of regulations. Among other things, EO 12866 provides OMB with the responsibility for a coordinated review of agency rulemaking to ensure that regulations are consistent with applicable law, the President's priorities, and the principles of the Executive Order. During the inter-agency review for the ozone NAAQS, the public record shows the disagreement between OMB and EPA on the most appropriate form for the secondary ozone standard. Specifically, before me were two legally viable and

record-supported options for the form of the secondary standard, both of which were proposed. The first option was to use a form that accumulates over the course of a season (called a “seasonal form”) and the second option was to use the same form as the primary standard by averaging over the course of 8 hours. Both options provided a secondary standard that was more protective than the previous 1997 secondary standard. On the basis of an analysis looking at recent air quality data from currently monitored communities, the seasonal form of the standard would be unlikely to provide additional protection in any areas beyond that likely to be provided by the revised primary standard. The President concluded that, consistent with Administration policy, added protection should be afforded to public welfare by strengthening the secondary ozone standard and setting it to be identical to the new primary standard, the approach adopted when ozone standards were last promulgated. This approach recognizes the Administrator's judgment that the secondary standard needs to be adjusted to provide increased protection to public welfare and avoids setting a standard “lower or higher than is necessary” which is how the Supreme Court articulated setting the standards. While I fully considered the President’s views, my decision, and the reasons for it, are based on and supported by the record in this rulemaking. I determined that the appropriate balance to be drawn was to revise the secondary standard to be identical in every way to the revised primary standard.

IMPLEMENTATION

The Clean Air Act requires EPA to designate areas as attainment (meeting the standards), nonattainment (not meeting the standards), or unclassifiable (insufficient data to classify) after the Agency sets a new standard, or revises an existing standard. Although EPA is not making non-attainment determinations at this time, our most recent available data –from 2004 through 2006—show that 345 counties with ozone monitors do not meet the more protective new standard. Actual non-attainment designations will be made in 2010, most likely based on data from either the 2006 - 2008 or 2007 - 2009 monitoring seasons. The areas determined to be out of attainment based on these data will have three years to develop plans to meet the standard and – depending upon the severity of the problem – up to 20 years to comply.

EPA has helped and will continue to help states meet the revised standards by addressing air pollution at the national and regional levels. EPA's rules and voluntary programs will significantly reduce ground-level ozone pollution, mainly by reducing emissions of NOx. These rules include the Clean Air Interstate Rule that reduces ozone forming emissions from power plants in the eastern U.S., and the Clean Diesel Program that reduces emissions from highway, nonroad and stationary diesel engines nationwide.

These programs and many other controls established by states and EPA will continue to reduce ozone levels in years to come. In fact, considering only the control programs in place today, we project that only 28 counties will remain in nonattainment with the new ozone standard in 2020, as compared to the 345 counties measuring exceedances today. Based on air quality modeling projections for 2020 no additional counties would have violated the alternative seasonal cumulative form of the secondary standard that EPA proposed.

UPDATING THE CLEAN AIR ACT

I have now signed two wide-ranging air quality standards – one for particulate matter, and now one for ozone. Earlier this month, I proposed and sought comment on a revised NAAQS for lead. In the process of navigating the requirements of the law, I have come to see the strengths and limitations of the Clean Air Act, and the need to change it for the better.

For 38 years, the Clean Air Act has served the nation well by setting ambitious standards and delivering real results. And during its first 20 years, it was updated to reflect advances in science, technology and policy tools. But it has been nearly two decades since most of the Clean Air Act was last revised. Now is the time to begin the public debate to modernize and upgrade its components.

On the same day I announced our nation's strengthened ground-level ozone standards, I announced four principles upon which the Administration will base legislative proposals to modernize the Clean Air Act. Congress has adopted many of these principles in other environmental statues, such as the Safe Drinking Water Act.

- First, I believe the Clean Air Act legislation should protect the public health and improve the overall well-being of our citizens.

- Second, it should allow decision-makers to consider benefits, costs, risk tradeoffs, and feasibility in making decisions about how to clean the air.
- Third, the Clean Air Act legislation should provide greater accountability and effective enforcement to ensure not only paper requirements but also air quality requirements are met, especially in areas with the furthest to go in meeting our standards.
- And finally, it should allow the schedule for addressing NAAQS standards to be driven by the available science and the prioritization of health and environmental concerns, taking into account the multi-pollutant nature of air pollution.

CONCLUSION

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