

Fact Sheet:
Review of National Ambient Air Quality Standards for Ozone
Second Draft Staff Paper, Human Exposure and Risk Assessments and First Draft
Environmental Report

Action

- On July 18, 2006, the Environmental Protection Agency (EPA) released several documents that are part of the Agency's on-going review of the national ambient air quality standards (NAAQS) for ground-level ozone.
- The first of these documents is the second draft Staff Paper -- "Review of National Ambient Air Quality Standards for Ozone." The second draft Staff Paper reflects comments received from the Clean Air Scientific Advisory Committee (CASAC) and the public following the review of the first draft Staff Paper.
- The second draft Staff Paper points to an expanded body of health effects evidence suggesting a wide range of adverse health effects associated with exposure to ambient ozone. This information comes from a number of epidemiological and controlled human exposure studies that:
 - suggest that asthmatic individuals are at greater risk for a variety of ozone-related effects including increased respiratory symptoms, increased medication usage, increased doctors visits, emergency department visits, and hospital admissions;
 - provide highly suggestive evidence that short-term ambient ozone exposure contributes to mortality; and
 - report health effects at ozone concentrations lower than the level of the current standards, as low as 0.04 parts per million (ppm) for some highly sensitive individuals.
- Other important observations from the second draft Staff Paper find that:
 - risk estimates of lung function decrements are lower in healthy active children now than estimated in the 1997 review, however, risk estimates for respiratory-related hospital admissions are greater now than in the 1997 review; and
 - results of the assessment of environmental effects suggest that even when the current primary standard is attained, significant environmental effects continue to occur, suggesting the need for a separate secondary standard.
- EPA will issue the second draft Staff Paper in two parts. The bulk of the document will be available for CASAC and public review on July 18, 2006. While the initial staff options and conclusions about whether to retain or revise the existing primary (health-based) standard have been determined, Chapter 6 which integrates the scientific studies and results of the exposure and risk analyses to inform these options, will be available for review approximately 1-week later.

- This draft of the Ozone Staff Paper presents initial staff options and conclusions for consideration by the EPA Administrator about whether to retain or revise the existing primary (health-based) and secondary (welfare-based) ozone standards. Staff options and conclusions for the Administrator's consideration include:
 - range of health-based (primary) 8-hour ozone standards with retention of the current primary standard at 0.08 ppm as well as a revision to an 0.07 ppm, 8-hr standard; and
 - secondary standard that would better protect vegetation from ozone damage. – changing to a cumulative standard that gives greater weight to higher concentration would accomplish this.

- EPA is also releasing second drafts of the Human Exposure Analysis and the Health Risk Assessment. These draft documents reflect both public and CASAC comments on the first drafts. These documents present estimates of population exposure to ozone and health risks associated with air quality that meets the current 8-hour standard and several potential alternative 8-hour standards.

- Finally, on or about July 25, 2006, EPA will release for public review the first draft Technical Report on Ozone Exposure, Risk and Impacts Assessments for Vegetation" This document presents evidence of the impacts of ozone on crops, forests and sensitive plant species. Key findings include:
 - evidence that current ozone levels cause decreased yield and biomass in many crops and forest plants, and reduce the nutritive quality of some crops.
 - leaf injury from ozone exposure is widespread across U.S.,
 - ozone effects on sensitive plant species, including loss of vigor and competitive advantage, have implications for ecosystems

- These documents are available on EPA's Web site at:
http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_sp.html.

- EPA will accept public comment on the documents until September 18, 2006.

The Process

- The Staff Paper is the second step in the extensive scientific and technical assessment process EPA uses to review any NAAQS.

- The first step in that process is the preparation of an Air Quality Criteria Document. The Criteria Document is a comprehensive assessment of scientific data about the health and environmental effects associated with the pollutant under review -- in this case, ozone EPA's Office of Research and Development released the Final Ozone Criteria Document on March 21, 2006.

- The Clean Air Science Advisory Committee, a Congressionally mandated group of independent scientific and technical experts, will review the second draft Staff Paper

at a meeting August 24 and 25, 2006, in Research Triangle Park, North Carolina. This meeting is open to the public.

- EPA will carefully review and consider comments received during both the public comment period and at the August CASAC meeting. The Agency expects to release a final Staff Paper as well as final Exposure Analysis, Health Risk Assessment, and Environmental Assessment technical support documents in October 2006.
- EPA has agreed to propose action to revise or retain the current ozone standards in March 2007 and take final action in December of that year.

Background

- The Clean Air Act requires EPA to set National Ambient Air Quality Standards for ozone and five other major pollutants considered harmful to public health and the environment. (The others are particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide, and lead.)
- The law also requires EPA to periodically review the standards to ensure that they provide adequate health and environmental protection, and to update those standards as necessary.
- Tropospheric (ground-level) ozone is formed by reactions in the troposphere of volatile organic compounds (VOCs) and nitrogen oxides (NOx), which are emitted from numerous and diverse mobile (e.g., cars, trucks) and stationary (e.g., power plants) sources. These reactions are most likely to produce high levels of ambient ozone during periods of high temperature and high solar radiation during the summer months.
- EPA last updated the ozone standards in 1997; the decision to revise the standards was challenged in court by a number of parties. The Supreme Court unanimously upheld the constitutionality of the 1970 Clean Air Act provision that authorizes EPA to set NAAQS to protect public health and welfare. The Supreme Court also affirmed that the Clean Air Act requires EPA to set ambient air quality standards at levels necessary to protect the public health and welfare, without considering the economic costs of implementing the standards.

How to Comment

EPA will accept comments on these draft documents through September 18, 2006. Comments should be identified by Docket ID No. EPA-HQ-OAR-2005-0172 and submitted by one of the following methods:

- Internet: www.regulations.gov: Follow the on-line instructions for submitting comments.
- Email: a-and-r-Docket@epa.gov.
- Fax: 202-566-1741

- Mail (Please include a total of two copies):
Docket EPA-HQ-OAR-2005-0172,
Environmental Protection Agency,
Mailcode 6102T,
1200 Pennsylvania Ave., NW.,
Washington, DC 20460.
- Hand Delivery:
Public Reading Room,
Room B102, EPA West Building,
1301 Constitution Avenue, NW,
Washington, DC.
Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.