May 31, 1996

FACT SHEET

ADVANCED NOTICE OF PROPOSED RULEMAKING: NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE AND PARTICULATE MATTER

TODAY'S ACTION...

- The Environmental Protection Agency (EPA) is today issuing an advanced notice of proposed rulemaking indicating its intention to combine the timing for its decision on whether or not to retain or revise the current national ambient air quality standards (NAAQS) for ground-level ozone and particulate matter. EPA will propose its decision on both standards by November 29, 1996, with a final decision scheduled for mid-1997.

- Today's action also announces EPA's plan for developing an integrated strategy for the implementation of potential new ozone and particulate matter NAAQS, as well as a regional haze program.

- EPA believes that providing advanced notice of key issues that are under consideration in the reviews of the ozone and particulate matter standards will allow more time for public involvement in important decisions affecting public health and the environment.

WHY IS EPA CONCERNED ABOUT OZONE AND PARTICULATE MATTER?

- Exposure to ground-level ozone (or smog) can cause respiratory problems, chest pain, and coughing and may worsen bronchitis, emphysema, and asthma. Animal studies suggest that long-term exposure (months to years) to ozone can damage lung tissue and may lead to chronic respiratory illness.

- Adverse health effects are associated with exposure to particulate matter (measured as PM-10, denoting particles with a nominal size less than or equal to 10 micrometers in diameter). PM-10 includes "large" or coarse particles as well as "small" or fine particles. While both coarse and fine particles can increase respiratory symptoms and impair breathing, fine particles are more likely to contribute to the serious health effects found in a number of recently published epidemiological studies--these include premature death and respiratory illness in

children and other sensitive populations.

WHY IS EPA PROPOSING DECISIONS ON THE OZONE AND PARTICULATE MATTER NAAQS CONCURRENTLY?

- EPA is nearing completion of its reviews of the NAAQS for ozone and particulate matter. These extensive reviews and the related implementation activities have identified important common factors between the two pollutants. In addition to the similar health effects associated with exposure to ozone and particulate matter (e.g., increased respiratory symptoms and increased hospital admissions and emergency room visits for respiratory causes), other important similarities have been identified.

- Both fine particles and ozone remain in the air for days leading to regional scale transport that can affect broad areas of the country. Both pollutants are formed under similar atmospheric conditions by gases (e.g., nitrogen oxides, volatile organic compounds) emitted from the same types of sources.

- These similarities provide opportunities for optimizing integrated strategies for reducing emissions of both ozone and fine particles in the most cost-effective, efficient and flexible manner possible.

WHAT ARE THE KEY ISSUES ADDRESSED IN EPA'S ADVANCED NOTICE OF PROPOSED RULEMAKING?

- In addition to announcing concurrent schedules for the ozone and particulate matter NAAQS, the notice spells out the options EPA is considering in revising both the ozone and particulate matter standards and alerts the public to certain key issues related to the standards.

- The Clean Air Act Scientific Advisory Committee (CASAC)--a Congressionally mandated group of independent scientific and technical experts--has completed its reviews of both the ozone and particulate matter "criteria documents." The Committee concluded that these documents provide an adequate review of the available scientific data and relevant studies. CASAC has also completed its review of the ozone staff paper and found that it provides an adequate scientific basis for making regulatory decisions concerning the primary (or health-based) and secondary (or welfare-based) standards.

Following are options under consideration for possible revisions to the ozone and particulate matter NAAQS:

Ozone

- New alternative averaging times, forms, and levels of the ozone standards are under consideration. This includes whether a new 8-hour standard in the range of 0.07-0.09 ppm is appropriate to protect public health.

- EPA is considering a new secondary standard in the form of a 3-month, 12-hour, SUM06 exposure index, set at a level within the range of approximately 38 to 25 ppm-hours, if the EPA Administrator determines that additional protection is needed beyond that provided by the alternative primary standards.

- Today's action also requests specific public comment on alternatives related to averaging across various ozone monitors in determining whether an area is meeting the ozone standard.

Particulate Matter

- EPA's particulate matter draft "staff paper" concluded that the current standard should be revised to provide increased protection of public health. This could be achieved by lowering the level of the PM_{10} standards, but the staff recommends that more effective and efficient protection could be provided by establishing separate standards for the fine and coarse fractions of PM_{10}. Fine particles are defined as those smaller than 2.5 micrometers in diameter as indicated by $PM_{2.5}$ (The diameter of one human hair is about 70 micrometers.)

- With regard to the secondary or welfare-based standard, EPA is considering establishing regional haze regulations under the visibility protection provision of the Clean Air Act as a more effective approach to visibility protection than a national standard.

WHAT IS EPA'S INTEGRATED IMPLEMENTATION STRATEGY?

- EPA has initiated a process designed to provide for significant stakeholder involvement in the development of integrated implementation strategies for possible new or revised NAAQS for ozone and particulate matter, and a new

regional haze program. This process involves a new subcommittee of EPA's Clean Air Act Advisory Committee established under the Federal Advisory Committee Act (FACA). The subcommittee is comprised of representatives from state, local and tribal organizations, environmental groups, industry, academia, and other federal agencies.

- The subcommittee is charged with providing advice and recommendations to EPA on developing an integrated implementation strategy that is innovative, cost-effective and flexible.

- The implementation program for ozone, particulate matter and regional haze will be developed in a two-phased approach. In Phase I, the subcommittee and workgroups will address air quality management framework issues (such as designations for new NAAQS and regional haze planning areas). The first phase of the implementation strategy will be proposed in June 1997. Phase II of the integrated implementation strategy will focus on more detailed control strategy development and will be proposed in June 1998.

BACKGROUND: HOW DOES THE NAAQS REVIEW PROCESS WORK?

- The Clean Air Act directs EPA to identify and set national standards for pollutants which cause adverse effects to public health and the environment. EPA has set national air quality standards for six common air pollutants---ground-level ozone (smog), carbon monoxide, lead, nitrogen dioxide, sulfur dioxide, and particulate matter (measured as PM-10).

- For each of these six pollutants, EPA has set health-based or "primary" standards to protect public health, and welfare-based or "secondary" standards to protect the environment (crops, vegetation, wildlife, buildings and national monuments, visibility, etc).

- EPA is required by the Clean Air Act to review the health and welfare-based standards at least once every five years to determine whether or not revisions to the standards are necessary to continue to protect public health and the environment.

- EPA undertakes an extensive scientific and technical assessment process during the standard review for any

pollutant. The first step in the process is the development of the Agency's "criteria document," an extensive assessment of scientific data pertaining to the health and environmental effects associated with the pollutant under review.

- EPA then prepares a document (known as a "staff paper") that interprets the most relevant information in the "criteria document" and identifies 1) factors EPA staff believe should be considered in the standard review; 2) uncertainties in the scientific data; and 3) ranges of alternative standards the staff believes should be considered. The "staff paper" is compiled by technical staff to assess the policy implications of the science. It represents the views of the staff and, in final form, is ultimately used as the basis for staff recommendations to the EPA Administrator.

- Drafts of both the "criteria document" and the "staff paper," which are based on thousands of peer reviewed scientific studies, receive extensive review by representatives of the scientific community, industry, public interest groups and the public, as well as the Clean Air Scientific Advisory Committee (CASAC).

- As part of its mandate, CASAC also makes recommendations to EPA on the adequacy of the standards. Based on the scientific assessments and taking into account the recommendations of CASAC, the EPA Administrator must judge whether or not it is appropriate to propose revisions to the standards.

- The current health and welfare-based standards for ozone (they are both 0.12 ppm, 1 hour standards) were last revised in 1979. The current health and welfare-based standards for particulate matter (measured as PM-10, denoting particles with a nominal size less than or equal to 10 micrometers in diameter) were set in 1987. The health and welfare-based standards for PM-10 are 150 micrograms per cubic meter ($\mu g/m^3$), 24 hour standard and 50 $\mu g/m^3$, annual standard.

FOR MORE INFORMATION...

- Anyone with a computer and a modem can download today's notice from the Clean Air Act Amendments bulletin board (look under "Recently Signed Rules") of EPA's electronic

Technology Transfer Network (TTN) by calling (919) 541-5742. For further information about how to access the board, call (919) 541-5384. For further information about the ozone NAAQS review contact Dr. David McKee at (919) 541-5288. For further information about the particulate matter NAAQS review contact Dr. Jane Caldwell at (919) 541-0328. For further information about the integrated implementation strategy development process contact Ms. Denise Gerth at (919) 541-5550.