Draft 9/16 **FACT SHEET**

FINAL DECISION ON THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR NITROGEN DIOXIDE

TODAY'S ACTION...

- The Environmental Protection Agency (EPA) is today announcing its final decision to retain the current National Ambient Air Quality Standards (NAAQS) for nitrogen dioxide. EPA believes that the current standards are adequate to protect public health and the environment from the direct effects of nitrogen dioxide, and that revisions to the standards are therefore not appropriate at this time. The EPA's health-based or primary standard and its secondary standard (designed to protect soil, water, vegetation, manmade materials, etc.) for nitrogen dioxide are both set at 0.053 parts per million, measured as an annual average.

- Nitrogen dioxide belongs to a family of highly reactive gases called nitrogen oxides. These gases form when fuel is burned at high temperatures, and are emitted primarily from automobile exhaust and power plants. Nitrogen oxides are associated with a number of adverse environmental effects.

WHAT ARE THE ADVERSE HEALTH EFFECTS ASSOCIATED WITH EXPOSURE TO NITROGEN DIOXIDE?

- Exposure to nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections (e.g., influenza), particularly in people with existing respiratory illness, such as asthma. The effects of short-term exposure to nitrogen dioxide are still unclear, but continued or frequent exposure to concentrations higher than those normally found in the ambient air may cause increased incidence of acute respiratory illness in children.

WHY IS EPA CONCERNED ABOUT NITROGEN OXIDES?

- Air monitoring data indicate that no areas of the country have violated the national air quality standard for nitrogen dioxide for the past 3 years. Despite the fact that all cities meet the national standards for nitrogen dioxide, EPA remains concerned about emissions of

nitrogen oxides because of their contribution to other environmental problems.

- Emissions of nitrogen oxides from sources such as power plants and cars contribute significantly to the formation of ground-level ozone (smog) and acid rain. In addition, recent studies indicate that nitrogen deposition is contributing to the acidification of sensitive lakes and streams and to the eutrophication of the Chesapeake Bay and other coastal waters. Eutrophication can result in a number of problems including: an increase in nuisance and toxic algae blooms, oxygen depletion in water causing the decreased population of fish, and the detrimental "shading" or reduction of light to vital aquatic plants.

WHAT IS EPA DOING TO CONTROL EMISSIONS OF NITROGEN OXIDES?

- The Clean Air Act Amendments of 1990 call for a 2 million ton reduction in emissions of nitrogen oxides by the year 2000. The EPA has several programs already in place to reduce levels of nitrogen oxides nationwide that contribute to ground-level ozone (smog), acid rain, and other environmental problems.

  -EPA introduced tighter tailpipe standards for cars in 1994 that will be phased-in on car models through 1996. Tighter tailpipe standards will substantially reduce emissions of volatile organic compounds (VOC's) and nitrogen oxides, the main components that form ground-level ozone. In addition, EPA is currently developing regulations in partnership with the State of California and leading manufacturers of heavy-duty engines that will significantly reduce emissions of nitrogen oxides from cars and trucks.

  -Large sources of nitrogen oxides, such as power plants, that are located in areas that fail to meet the national ambient air quality standard for ground-level ozone, are generally required to apply stringent controls (e.g., reasonably available control technology, as defined by the Clean Air Act).

  -The EPA is developing and implementing rules for nitrogen oxides under the Acid Rain Program in two stages or groups for two categories of coal-fired utility boilers. The regulation for "Group I" was

issued in 1995 and is expected to significantly reduce emissions of nitrogen oxides. In January 1996, EPA proposed a regulation for "Group II" boilers which addresses all remaining categories of coal-fired boilers, and proposes tightening existing standards for Phase II "Group I" boilers. The regulation for "Group I" boilers alone is expected to reduce nitrogen oxide emissions by 1.2 million tons by the year 2000.

-In September 1994, 11 Northeastern States and the District of Columbia, that comprise the Ozone Transport Commission, signed a memorandum of understanding to reduce emissions of nitrogen oxides by 55-75% from 1990 levels. The reductions will occur in two phases--1999 and 2003--and will help significantly reduce levels of smog in the Northeastern United States.

-The EPA has conducted a number of studies, including the Great Waters Report to Congress and the Acid Deposition Standard Feasibility Study, that address the contribution of nitrogen oxide emissions to water quality problems in the Great Lakes, coastal waters, and other sensitive ecosystems.

FOR FURTHER INFORMATION...

- Anyone with a computer and a modem can download the final decision from the Clean Air Act Amendments bulletin board (under "Recently Signed Rules") on EPA's Technology Transfer Network (TTN) by calling (919) 541-5742. For further information about how to access the bulletin board, call (919) 541-5384. For further information about the final decision, contact Chebryll Edwards of EPA's Office of Air Quality Planning and Standards at (919) 541-5428.