

Areas Designated “Nonattainment” for the Fine Particle National Air Quality Standards

FACT SHEET December 17, 2004

ACTION

- X Today, the Environmental Protection Agency (EPA) designated areas for the Fine Particle National Air Quality Standards.
- X These designations play an important role in letting the public know whether air quality in their area is healthy. When designations take effect, they become an important component of state, local and tribal governments’ efforts to reduce fine particle pollution. By law, nonattainment areas are subject to a number of requirements to reduce particles and the pollutants that form them.
- X Fine particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. Fine particles can be emitted directly (such as smoke from a fire) or formed in the atmosphere from power plant, industrial and mobile source emissions of gases such as sulfur dioxide and nitrogen oxides.
- X Fine particles less than or equal to 2.5 micrometers in diameter (called PM_{2.5} and measuring about one-thirtieth the diameter of an average human hair), pose the greatest risk. These particles can get deep into the lungs, and some may even get into the bloodstream.
- X Areas not meeting the national air quality standards are called *nonattainment areas*. These areas have had (or have contributed to) PM_{2.5} levels higher than allowed under EPA’s national air quality standard. The standards are designed to protect the public from exposure to PM_{2.5} at levels that may cause health problems. While fine particles are unhealthy for anyone to breathe, people with heart or lung disease, asthmatics, older adults, and children are especially at risk.
- X States and tribes with designated nonattainment areas must submit plans that outline how they will meet the PM_{2.5} standards. Areas are required to attain clean air as soon as possible but no later than 2010. EPA may grant attainment date extensions of up to five years in areas with more severe PM_{2.5} problems and where emissions control measures are not available or feasible.
- X The Bush Administration has made the reduction of fine particle pollution a critical element of a comprehensive national clean air strategy. This strategy includes EPA’s recent Clean Air Nonroad Diesel Rule to reduce pollution from nonroad diesel engines, Clear Skies legislation and the proposed Clean Air Interstate Rule to reduce pollution from power plants

in the eastern U.S. These two rules are important components of EPA's efforts to help states and localities meet the more protective fine-particle and 8-hour ozone national air quality standards. Together these rules will help all areas of the country achieve cleaner air.

ABOUT DESIGNATIONS

- Areas that have been designated as nonattainment will need to take action to improve their air quality.
- The Clean Air Act requires state, local and tribal governments to take steps to control particle pollution in nonattainment areas. Those steps may include stricter controls on industrial facilities and additional planning requirements for transportation sources.
- State, local and tribal governments must detail these control requirements in plans demonstrating how they will meet the PM_{2.5} national air quality standard. Those plans are known as State or Tribal Implementation Plans, or SIPs/TIPs. States and tribes must submit their plans to EPA within three years after the Agency's final designations become effective.
- Nonattainment areas are subject to a measure known as "transportation conformity," which requires local transportation and air quality officials to coordinate planning to ensure that transportation projects, such as road construction, do not affect an area's ability to reach its clean air goals. Transportation conformity requirements become effective one year after an area is designated as nonattainment.
- Once designated, nonattainment areas also are subject to New Source Review requirements. New Source Review is a permitting program for industrial facilities to ensure that new and modified sources of pollution do not impede progress toward cleaner air.
- Areas designated as "attainment" have monitored air quality that meets the level of EPA's health-based national air quality standards for fine particle pollution and/or do not contribute to air quality problems in other areas. While these areas will not have to take steps to improve air quality, they must prevent their air quality from significantly deteriorating.
- In February and April 2003, EPA provided guidelines to states and tribes for recommending nonattainment area boundaries for the PM_{2.5} standard. Consistent with the Clean Air Act, the guidances instructed states and tribes to begin their analysis of attainment and nonattainment area boundaries based on the boundaries of metropolitan areas. The guidances also instructed states to include in nonattainment areas any nearby counties with sources contributing to fine particle pollution in those metropolitan areas. The guidances recommended that states and tribes consider using common boundaries for areas to be designated as nonattainment for both the PM_{2.5} and 8-hour ozone standards. Common boundaries will help states and tribes facilitate future planning and implementation activities.

- EPA recommended states and tribes to use metropolitan area boundaries to ensure that they consider population density, traffic and commuting patterns, commercial development and area growth when recommending areas for attainment and nonattainment designation.
- X EPA also asked states and tribes to consider the following factors as they developed their boundary recommendations:
 - < emissions and air quality in adjacent areas
 - < population density and commercial development in adjacent areas
 - < traffic and commuting patterns
 - < extent, pattern and rate of growth
 - < weather and transport patterns
 - < mountains or other air basin boundaries
 - < jurisdictional boundaries
 - < level of control of emission sources
- X In mid-February 2004, states and tribes recommended PM_{2.5} designations to EPA for areas to be designated as "nonattainment." EPA revised these recommendations and responded to the states and tribes on June 28 and 29.

FINE PARTICLE STANDARDS BACKGROUND

- In July 1997, EPA issued National Ambient Air Quality Standards for Fine Particles (PM_{2.5}). The standards include an annual standard set at 15 micrograms per cubic meter, based on the 3-year average of annual mean PM_{2.5} concentrations and a 24-hour standard of 65 micrograms per cubic meter, based on the 3-year average of the 98th percentile of 24-hour concentrations.
- A number of events delayed the implementation of the PM_{2.5} standard.
 - < EPA's new standards were challenged by the American Trucking Association, the U.S. Chamber of Commerce and other state and business groups.
 - < The Transportation Equity Act for the Twenty-first Century (TEA-21) revised the deadline to publish nonattainment designations in order to provide additional time to collect three years of air quality monitoring data.
- In February 2001, the Supreme Court upheld EPA's authority under the Clean Air Act to set National Ambient Air Quality Standards that protect the American public from harmful effects of air pollution. The Supreme Court also sent the case back to the D.C. Circuit Court of Appeals to resolve several additional issues. In March 2002, the DC Circuit Court rejected all remaining legal challenges to EPA's 1997 ambient air quality standards for PM_{2.5}.
- The health effects associated with exposure to fine particles are significant. Scientific studies have shown significant associations between elevated fine particle levels and premature mortality. Effects associated with fine particle exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room

visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and cardiac arrhythmia.

FOR MORE INFORMATION

- For more information on the designation process for the fine particle standards, go to EPA's Web site at www.epa.gov/pmdesignations.