

# **Additional Air Quality Designations for the 2006 24-Hour Fine Particle National Ambient Air Quality Standards and Decisions Related to the 1997 Air Quality Designations for the Annual Fine Particles Standards**

## **ACTIONS**

### **Designations for the 24-hour Fine Particle Standards (35 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ))**

- On January 26, 2011, the U.S. Environmental Protection Agency (EPA) issued final air quality designations for the 2006 24-hour  $\text{PM}_{2.5}$  National Ambient Air Quality Standards (NAAQS) for three areas. EPA deferred final designation for these areas in November 2009 when the Agency designated all other areas of the country. EPA deferred action on these areas to evaluate the reasons for high fine particle concentrations measured by violating monitors.
- These three areas and their attainment status include:
  1. **Pinal County, Arizona** (portion of state lands) - designated as nonattainment.
    - EPA based this nonattainment designation on air quality monitoring data from 2006-2008 as well as other factors, analytical tools, and technical information.
    - EPA is designating eight counties surrounding Pinal County as unclassifiable/attainment.
    - Designations for the Gila River Indian Community and the Ak-Chin Indian Community are deferred until completion of the formal consultation process. EPA is designating all other tribal lands in the deferred areas as unclassifiable/attainment.
  2. **Plumas County, California** (and surrounding counties) - designated as unclassifiable/attainment based on further review of air quality monitoring data, including an evaluation of submitted exceptional event claims.
  3. **Shasta County, California** (and surrounding counties) - designated as unclassifiable/attainment based on further review of air quality monitoring data, including an evaluation of submitted exceptional event claims.
- EPA also is correcting two errors in the November 2009 final designations for the 2006 24-hour  $\text{PM}_{2.5}$  standards.
  - The first is a 110(k)(6) error correction that corrects the designation classification for Ravalli, Montana, changing it from “unclassifiable” to “unclassifiable/attainment.”
  - The second changes the name of the Knoxville, Tennessee nonattainment area to “Knoxville-Sevierville-La Follette, Tennessee” to correspond with the name of the Core Based Statistical Area.

## **Redesignations for the 1997 Annual PM<sub>2.5</sub> Standards (15 µg/m<sup>3</sup>)**

- In the November 13, 2009 final designations for the 24-hour fine particle standards, EPA also indicated that it would initiate the process to redesignate two areas to nonattainment for the 1997 annual PM<sub>2.5</sub> standards. EPA is retaining the designation status of unclassifiable/attainment for both of these areas. The two areas are:
  - **Pinal County, Arizona.** EPA has determined that the monitor that was violating the 1997 annual PM<sub>2.5</sub> standards based on 2006-2008 data is ineligible for comparison to the annual PM<sub>2.5</sub> standards.
  - **Harris County, Texas.** The monitor violating the annual PM<sub>2.5</sub> standards based on 2006-2008 data is no longer violating, based on complete, quality-assured, certified 2007-2009 data.

## **REQUIREMENTS FOR THE PINAL COUNTY NONATTAINMENT AREA**

- The Pinal County, Arizona nonattainment area contains an ambient air quality monitor that violates the 2006 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup>. The Clean Air Act requires Arizona to take steps to control PM<sub>2.5</sub> pollution in the newly designated Pinal County nonattainment area. Those steps may include stricter controls on industrial facilities.
- Arizona must detail these steps in a plan that demonstrates how they will meet the 2006 24-hour PM<sub>2.5</sub> standards. This plan is known as a state implementation plan, or SIP. Arizona must submit its SIP to EPA within three years of the effective date of the Agency's nonattainment designation.
- The Pinal County nonattainment area is required to meet the standards as expeditiously as practicable, but no later than five years from the effective date of nonattainment designation. If the Pinal County nonattainment area fails to meet the attainment date, EPA has six months to make an attainment determination. If EPA determines that an area failed to meet the standard, Arizona has 12 months to submit a SIP revision and up to five years to meet it.
- Sources of emissions within the Pinal County nonattainment area are subject to new source review permitting 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. Additionally, the partial Pinal County nonattainment area must meet transportation conformity requirements.

## BACKGROUND

- The Clean Air Act requires EPA to issue designations after the Agency sets a new NAAQS or revises an existing standard. For the 2006 24-hour PM<sub>2.5</sub> standards, EPA formally designates areas as “nonattainment” (not meeting the standard), “unclassifiable/attainment” (meeting the standard or expected to be meeting the standard), or “unclassifiable” (insufficient data to classify).
- On July 18, 1997, EPA revised the NAAQS for particulate matter to add new standards for fine particle pollution, using PM<sub>2.5</sub> as the indicator. EPA established annual and 24-hour standards for PM<sub>2.5</sub>. The primary and secondary annual PM<sub>2.5</sub> standards were set at a level of 65 µg/m<sup>3</sup>.
- On October 17, 2006, EPA strengthened the primary and secondary 24-hour PM<sub>2.5</sub> NAAQS from 65 µg/m<sup>3</sup> to 35 µg/m<sup>3</sup>, and retained the primary and secondary annual PM<sub>2.5</sub> NAAQS at 15 µg/m<sup>3</sup>. Numerous scientific studies have linked exposure to these tiny particles (approximately 1/30<sup>th</sup> the size of a human hair) with serious human health problems including premature death in people with heart and lung disease; nonfatal heart attacks; and increased hospital admissions and doctor and emergency room visits for respiratory and cardiovascular disease.
- On November 13, 2009, EPA designated 31 areas nonattainment for the 2006 24-hour PM<sub>2.5</sub> standards based on 2006-2008 data.
- In June 2007, EPA provided guidance to states and tribes for recommending nonattainment area boundaries for the 2006 24-hour PM<sub>2.5</sub> standard. EPA also used these factors and additional analytical tools, and other relevant information, to make final decisions on nonattainment area boundaries for the final designations identified in the November 13, 2009 action and in this action:
  - Emission data
  - Air quality data
  - Population density and degree of urbanization (including commercial development)
  - Traffic and commuting patterns
  - Growth rates and patterns
  - Meteorology (weather/transport patterns)
  - Geography/topography (mountain ranges or other air basin boundaries)
  - Jurisdictional boundaries (e.g., counties, air districts, reservations, metropolitan planning organizations)
  - Level of control of emission sources
- States and some tribes provided their initial designation recommendations in December 2007 based on the most recent three years of air quality monitoring data, generally 2004-2006. In August 2008, EPA sent letters to state and tribal representatives responding to their initial recommendations for areas meeting and not meeting the 2006 24-hour PM<sub>2.5</sub> standards. States and tribes had 120 days to comment on EPA’s modifications to their recommendations, and to provide new information and analyses to EPA, if appropriate.
- EPA also provided the public with a 30-day opportunity to comment on the Agency’s proposed modifications to the state and tribal recommendations and to offer additional information that could help establish the final nonattainment area boundaries.

- After reviewing the additional information received, in December 2008, EPA made decisions on area designations based on air quality monitoring data from 2005-2007. Because air quality monitoring for 2008 was nearly complete, EPA agreed to evaluate the status of an area based on 24-hour PM<sub>2.5</sub> air quality data from 2006-2008, if a state submitted complete quality-assured, certified air quality data for 2008 before the designations became effective.
- The December notice identifying areas as meeting and not meeting the standards was never published in the Federal Register. During an extended internal EPA review, 2008 air quality monitoring data for fine particle pollution were quality assured and certified by the states, and then used by EPA to make final designations reflecting these data (i.e., 2006-2008 data).
- Due to the availability of the 2008 data, however, three areas previously meeting the 2006 24-hour PM<sub>2.5</sub> standard were identified as newly violating the standard. These areas are Pinal County, Arizona; Plumas County, California; and Shasta County, California. Similarly, two areas initially shown to be attaining the 1997 annual PM<sub>2.5</sub> NAAQS (Harris County, Texas and Pinal County, Arizona) were violating those NAAQS also based on 2006-2008 monitoring data. Designations associated with these areas are the subject of this action.

#### **FOR MORE INFORMATION**

- For more information on the designation process for the PM<sub>2.5</sub> standards go to EPA's Web site at <http://www.epa.gov/pmdesignations/>.