PM 2.5 Implementation Program
PM\textsubscript{2.5} Implementation Schedule

- September 8, 2005: Proposed implementation rule signed by Administrator
- Proposed Rule published November 1, 2005 (70 FR 65984)
- Comment Period closes January 3, 2006
- Public Hearing not scheduled
- Summer/Fall 2006: Finalize implementation rule
- December 2007: Regional haze implementation plans due
- April 2008: PM\textsubscript{2.5} SIPs due
  - EPA encourages States to coordinate development of regional haze and PM\textsubscript{2.5} plans and intends to review these plans together
8-hour Ozone and PM2.5 Nonattainment Areas

Designated Nonattainment
- PM2.5 only*
- Both 8-hour Ozone and PM2.5*
- 8-hour Ozone Only

* For PM2.5, the designated partial county areas are shown as actual boundaries designated.

OAQPS, AQSSD
April 28, 2005
PM$_{2.5}$ Implementation Rule Issues

- Attainment dates
- Classifications
- PM$_{2.5}$ precursors
- Modeling and attainment demonstration
- Reasonably available control technology (RACT)
- Reasonably available control measures (RACM)
- Reasonable further progress (RFP)
- New source review
Attainment Dates

- State attainment demonstrations and SIP revisions are due April 2008
  - Attainment demonstrations need to provide the supporting analysis for State adoption of measures that will result in the area attaining the standard “as expeditiously as practicable”
- Attainment date is no later than 5 years from date of designation (e.g., April 2010)
  - Extensions of 1-5 years are possible
- Attainment determination would be based on most recent 3 calendar years (e.g., 2007-2009 for April 2010 attainment date)
Classifications

**Option 1:** No classification system
- Keeps it simple under subpart 1

**Option 2:** Moderate & serious classifications
- Request comment on criteria for two-tier system (examples: attainment date within 5 years or not; design value threshold)
Coverage of PM$_{2.5}$ Precursors

- Atmospheric chemistry leading to PM$_{2.5}$ formation is complex

- Proposed approach for PM$_{2.5}$ implementation and new source review:
  - PM$_{2.5}$ direct emissions (includes organic carbon, elemental carbon, and crustal material) and SO$_2$ must be addressed
  - NO$_x$ must be addressed in all areas, unless the State and EPA provide a demonstration finding that NO$_x$ is not a significant contributor in a specific area.
  - VOC and ammonia would not be addressed, unless EPA or the State provides a demonstration that VOC or ammonia is a significant contributor in a particular area.
Modeling and Attainment Demonstrations

- All nonattainment areas need to submit an attainment plan having appropriate modeling according to PM$_{2.5}$ modeling guidance.
- One-atmosphere modeling recommended (ozone, PM, haze).
- Years to model: coordinate with ozone and regional haze attainment & reasonable progress dates to the extent possible.
- Mid-course reviews will be required on a case-by-case basis through SIP approval process.
  - Check progress in 2010 and 2013; if not on track, conduct new modeling and evaluate new measures.
Reasonably Available Control Technology (RACT)

- RACT is the lowest emission limit that a source is capable of meeting with available control technology, considering technological and economic feasibility
  - **Option 1:** RACT required for all stationary sources with the potential to emit (pte) more than 100 tpy of direct PM$_{2.5}$ or any precursor
    - Also requesting comment on thresholds of 70 and 50 tpy
  - **Option 2:** RACT required for stationary sources only to the extent it is needed for expeditious attainment or to meet RFP
  - **Option 3:**
    - Option 2 for areas with attainment dates within 5 years
    - Option 1 for areas with attainment dates > 5 years
Reasonably Available Control Measures (RACM)

- A RACM demonstration must show that the State has adopted all reasonable measures needed to attain the standard as expeditiously as practicable and meet RFP
  - The demonstration should show that there are no additional measures available that would advance the attainment date or contribute to RFP
  - In determining RACM for an area, the State must consider the cumulative impact of implementing the available measures and whether such measures taken together would advance the attainment date
  - Limited RACM analysis for areas with attainment dates of April 2010 or earlier
Reasonable Further Progress (RFP)

- RFP: annual incremental reductions in emissions for purpose of ensuring timely attainment
- Baseline emission inventory year is 2002
- RFP plan due with attainment demonstration in 2008
PM$_{2.5}$ and New Source Review

- NSR applies upon effective date of PM$_{2.5}$ designations
  - PM$_{2.5}$ rule includes changes to NSR program
  - OAQPS April 5, 2005 guidance memo addresses interim period from effective date of designations to date of final rule

- Key Points
  - Use PM$_{10}$ major NSR program as surrogate, using either Appendix S or State’s SIP-approved PM$_{10}$ program
  - Major stationary source: potential to emit 100 tpy of PM$_{10}$ (including condensable emissions)
  - Offset ratio: 1 to 1
  - Significant emissions rate for modifications: 15 tpy of PM$_{10}$
  - Precursors not included in applicability for PM$_{2.5}$ major NSR program at this time
    - Until final NSR rules for PM$_{2.5}$ are issued, address NO$_x$ under NSR program for ozone or PSD program for NO$_2$ NAAQS, address VOC under NSR if area is also an ozone nonattainment area, and address SO$_2$ under PSD program for the SO$_2$ NAAQS.
PM$_{2.5}$ Implementation Rule - Other Issues

- Technical overview – chemistry, sources, ambient data
- Transportation conformity and general conformity
- Contingency measures
- Innovative program mechanisms
- PM$_{2.5}$ source test methods / condensables
- Improved monitoring techniques to reduce emissions
- Emission inventories
- Tribal issues
For more information …

- PM$_{2.5}$ designations and the proposed PM$_{2.5}$ Implementation Rule are available at:  [www.epa.gov/pmdesignations](http://www.epa.gov/pmdesignations)

- Technical information is located at:  [www.epa.gov/ttn/naaqs/pm/pm25_index.html](http://www.epa.gov/ttn/naaqs/pm/pm25_index.html)

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