

Supplemental Technical Support for State and Tribal Air Quality 24-Hour Fine Particle (PM_{2.5}) Designations

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Abbreviations and Acronyms

CAA- Clean Air Act
CBSA- Core Based Statistical Area
CES- Contributing Emission Score
CM- Crustal matter
C/MSA- Consolidated Metropolitan Statistical Area
CSA- Combined Statistical Area
CSN- Chemical Speciation Network
EC- Elemental carbon
EGU- Electric Generating Unit
EIP-Emission Impact Potential
EPA- United States Environmental Protection Agency
FHWA- Federal Highway Administration
FIPS- Federal Information Processing Standards
FRM- Federal Reference Method
FTIR – Fourier Transform Infrared
HPMS-Highway Performance Modeling System
IMPROVE- Interagency Monitoring of Protected Visual Environments
MDL- Minimum detection limit
MOBILE6- Mobile Source Emission Factor Model version 6
MPO- Metropolitan Planning Organization
NA- Nonattainment
NAAQS- National Ambient Air Quality Standards
NA-P- Part of the county was designated nonattainment
NEI- National Emissions Inventory
NMIM- National Mobile Inventory Model
NO_x - Nitrogen Oxides
OC- Organic carbon
OMC- Organic mass by carbon
OP- Pyrolyzed organics
PIXE- Particle Included X-Ray Emission
PM – Particulate Matter
PM_{2.5} – Particulate Matter with aerodynamic diameter less than 2.5 microns
Source Assessment Sampling System
SIP- State Implementation Plan
SO₂ – Sulfur Dioxide
STN- Speciation Trends Network
TCM- Total carbon mass
TOR -Thermal Optical Reflectance
TOT- Thermal Optical Transmittance
U- Unclassifiable
VMT- Vehicle Miles Traveled
VOC- Volatile Organic Compound
WES- Weighted Emission Score

1.0 Introduction

On December 22, 2008, then EPA Administrator Johnson signed a notice concerning the designations for the 2006 24-hour PM_{2.5} NAAQS, and the notice was made available to the public on the EPA website at that time. However, that signed notice was never published in the Federal Register and, therefore, was not officially promulgated. Section 107(d)(2)(A) requires EPA to publish the notice in the Federal Register in order to promulgate designations. The December 2008 notice was awaiting publication in January 2009 when the newly-elected Administration identified the notice as one that should receive additional review before publication.¹

Since January 2009, EPA has thus been reviewing the designation decisions for the 2006 24-hour PM_{2.5} NAAQS. Consideration of 2006-2008 air quality monitoring data reduced the number of areas violating the 2006 24-hour PM_{2.5} NAAQS from 58 to 31 areas. For one area no longer violating the 2006 24-hour PM_{2.5} NAAQS based on 2006-2008 data, York County, PA, EPA concluded that it nevertheless contributes to violations in another nearby violating area, Harrisburg-Lebanon-Carlisle-York, PA, and thus EPA has included York County, PA in that nonattainment area. This document supplements the original TSD posted on EPA's website and includes technical information to support the change in status for all of these areas, including the supporting evaluation for the inclusion of York County in the Harrisburg-Lebanon-Carlisle-York, PA nonattainment area.

¹ See, "Memorandum For The Heads of Executive Departments and Agencies," from Rahm Emanuel, Assistant to the President and Chief of Staff, dated January 20, 2009.