



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 20 2006

THE ADMINISTRATOR

Steven E. Chester, Director  
Michigan Department of Environmental Quality  
525 West Allegan Street  
P.O. Box 30473  
Lansing, MI 48909-7973

Dear Director Chester:

Thank you for your letter of February 22, 2005, concerning fine particulate matter (PM<sub>2.5</sub>) designations in Southeast Michigan. In your letter, you provided 2004 monitoring data for the Detroit-Ann Arbor nonattainment area and requested that the Environmental Protection Agency (EPA) change the designation status for Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties to attainment for the PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS). We are viewing this letter as a petition for reconsideration of the PM<sub>2.5</sub> designation for the Detroit-Ann Arbor nonattainment area. For the reasons set forth herein, EPA denies your petition.

In determining an area's designation, we rely on the Clean Air Act (CAA) definition of a nonattainment area in section 107(d)(1)(A)(i). That provision defines as nonattainment any area that is violating an ambient standard or any area that is contributing to a nearby violation. If an area meets this definition, EPA is obligated to designate the area as nonattainment. In making designations, we reviewed all available technical data related to the relevant considerations set out in EPA's April 1, 2003, guidance such as air quality, source locations and emissions, meteorology, terrain, population, commuting, and growth in the area. For areas where a monitor was recording a violation, we determined what nearby areas were contributing to the violation and included them in the designated nonattainment area. The technical support analyses for all nonattainment areas are located on EPA's web site at <http://epa.gov/pmdesignations/documents/final/TSD/Ch6.pdf>. Based on the analysis for the Detroit-Ann Arbor nonattainment area, EPA determined that Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties were contributing to the violating monitors in adjacent Wayne County. In particular, our analysis showed that the surrounding counties had sufficient emissions of PM<sub>2.5</sub> and precursor pollutants sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOC) to cause a contribution to the violating monitors in Wayne County. Other factors confirmed and bolstered this determination.

## **2002-2004 Data**

In EPA's January 5, 2005, Final Designation Notice (at 70 FR 944), the Agency observed that 2004 data (in combination with data from 2002 and 2003) could in some cases suggest a change in designation of area. Consequently, EPA offered the option for states to submit complete, certified, quality assured data for 2004 where appropriate. EPA stated that it would change an area's designation from nonattainment to attainment if inclusion of 2004 data showed that every county in an area was neither monitoring a violation of the standards nor contributing to a violation of the standards of a nearby area.

In your February 22, 2005, letter, you provided complete, quality assured, certified 2004 data for the Detroit-Ann Arbor nonattainment area and noted that data from the PM<sub>2.5</sub> monitors only in Wayne County were above the annual average PM<sub>2.5</sub> standard of 15.0 µg/m<sup>3</sup>. The 2004 data provided in your letter do not compel EPA to reach a different conclusion regarding the Detroit-Ann Arbor area's nonattainment status. EPA recognizes that the newly submitted ambient air quality data reflects a certain level of improvement of ambient air quality within the Detroit-Ann Arbor nonattainment area. However, for purposes of the designations, we believe that until the entire area is monitoring attainment, the entire area should be designated nonattainment.

We understand Michigan's concern that Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties have attaining monitors and yet are designated nonattainment. Many other areas are in the same situation. EPA designated many counties across the United States as nonattainment, despite having monitors reading attainment, because they contribute to nonattainment nearby. EPA believes that it is clear on the face of the statute that areas with monitored attainment should nevertheless be included in designated nonattainment areas when they contribute to violations in nearby areas.

Your letter encourages EPA to rely "predominately" on available ambient PM<sub>2.5</sub> air quality data. In fact, EPA relied exclusively on ambient air quality data to identify areas that have violations of the air quality standards. However, in accordance with our guidance of April 1, 2003, EPA considered other relevant information to define the boundaries of the nonattainment area associated with the monitored violations. A critical part of this process is to assess the extent to which a portion of a metropolitan area is contributing to a violation of the PM<sub>2.5</sub> NAAQS within such area. The CAA requires inclusion of areas "contributing" to the violation regardless of the degree of violation. In the context of the entire analysis, the inclusion of data from 2004 does not negate EPA's determination that Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties contribute to air quality that violates the PM<sub>2.5</sub> NAAQS within the Detroit-Ann Arbor nonattainment area.

## **Meteorology**

In your letter, you state that EPA's suggestion that winds from all directions have impacts on the high PM<sub>2.5</sub> days is not supported by the meteorological data for the area. We understand

your perspective and believe that it is the result of a difference in the way EPA and Michigan viewed the wind data. It is important to remember that PM2.5 is a regional pollutant and can be transported by prevailing winds. EPA analyzed the wind patterns in the area and found that there is influence on the Wayne County monitors from varying directions. You stated in your letter that the prevailing wind patterns show that PM2.5 and its precursors are generally transported from the surrounding Counties away from Wayne County on high PM2.5 days. Michigan submitted similar information prior to EPA's final determination of the nonattainment boundary for the Detroit-Ann Arbor nonattainment area which included a discussion of wind patterns and other meteorology. EPA concluded that the State's analysis and comments regarding prevailing winds did not justify excluding Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties. EPA continues to believe that winds from all directions do affect the Wayne County monitors and thus that all of the counties should remain within the nonattainment area boundaries.

### **Regional Controls**

In your letter, you also state regional controls, such as the nitrogen oxides (NOx) State Implementation Plan (SIP) Call, Tier II reductions of mobile emissions, future diesel rules and multipollutant transport rules, will provide regional reductions in the PM2.5 levels. EPA agrees that regional controls, such as the NOx SIP call and EPA's Clean Air Interstate Rule (CAIR), will provide important reductions in emissions of PM2.5 and its precursors, and we agree that CAIR will provide an important tool for reducing ambient PM2.5 levels across the region. However, regional control programs do not substitute for area-specific attainment demonstrations and are not designed to guarantee that each specific nonattainment area will attain the national standards. The CAIR will alleviate interstate transport, but it will not provide all of the additional local emission reductions that may be necessary to achieve the NAAQS in each nonattainment area. For nonattainment areas, we rely on an area-specific control strategy developed by the State which should include a combination of significant regional controls along with specific local controls. In addition, the PM2.5 designations were based on an assessment of current violations of the standard and associated contributions, not projected future conditions after application of new regional controls.

### **Vehicle Miles Traveled**

Your letter suggests that the inclusion of the outlying counties in the nonattainment area should be reconsidered because "the majority of VMT within Wayne County come from Wayne County residents" and "total incoming VMT from the other counties is less than 35 percent." EPA believes that 35 percent of the VMT in Wayne County is a significant portion of the mobile emissions within the designated nonattainment area. EPA also believes that counties with numerous commuters are generally an integral part of the area, and would be an appropriate part of a nonattainment area for evaluation of appropriate control measures such as some mobile source strategies, thus warranting inclusion in the nonattainment area.

## **Monroe County**

You specifically requested that EPA remove Monroe County from the area because 2004 data would change the monitored status in that location. We had several reasons for including Monroe County in the Detroit-Ann Arbor nonattainment area. First, the emissions from this county are relatively high. Second, the inclusion of Monroe County in the Detroit-Ann Arbor-Flint Consolidated Metropolitan Statistical Area suggests that Monroe County is an integral part of the Detroit-Ann Arbor nonattainment area. Third, winds blow emissions from Monroe County into Detroit more often than into Toledo. Therefore, EPA has consistently maintained that Monroe County contributes significantly to violations in Wayne County, and therefore warrants inclusion as part of a single Detroit-Ann Arbor nonattainment area. The change in 2004 data does not change any of these other circumstances.

## **Comparison to Toledo CMSA**

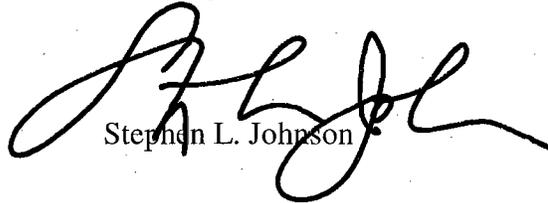
You also argued that Monroe County should be excluded from the Detroit-Ann Arbor nonattainment area because it was comparable to Fulton County, Ohio, which EPA did not include in the suggested Toledo nonattainment area. EPA notes that such a comparison is both inaccurate and inappropriate. Unlike Fulton County, Ohio, Monroe County, Michigan, has high emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors, (e.g. Fulton County has less than one thousand tons of sulfur dioxide emissions, whereas Monroe County has over one hundred thousand tons.) EPA carefully evaluated each county in an area for its effects on that area's nonattainment problem. This makes it impractical to compare a county in one area to a county in another area. EPA made these decisions on a case-by-case basis with a consistent approach to similar areas. Variations in circumstances from area to area resulted in some nonattainment areas including counties with similar characteristics to other counties that were excluded from other nonattainment areas.

## **Strain on State Resources**

EPA agrees that a nonattainment designation will have impacts on the economy of an area. However, through the process of developing the nonattainment area SIP for the Detroit-Ann Arbor nonattainment area, Michigan and EPA will have an opportunity to determine the appropriate mix and degree of controls in the area in order to attain the air quality standards as expeditiously as practicable, while achieving this goal in the most reasonable and effective manner consistent with the requirements of the CAA. EPA notes that because the counties are also designated nonattainment for ozone, there will be opportunities to coordinate SIP planning and control measures to achieve both NAAQS. EPA looks forward to working with Michigan during the SIP planning process in order to develop effective attainment plans.

EPA understands Michigan's preference for a smaller nonattainment boundary for the Detroit-Ann Arbor nonattainment area. However, your letter did not provide information that persuades EPA to reconsider its decision. Therefore, your petition for reconsideration is denied. We appreciate your commitment to continued improvement of air quality in Michigan.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. L. Johnson', written in a cursive style.

Stephen L. Johnson