



ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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September 13, 2004

Mr. James I. Palmer, Jr.
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Dear Mr. Palmer:

We have received your letter dated June 29, 2004, in which you notified us of EPA's proposals for altering the fine particulate matter (PM2.5) nonattainment area boundaries that Alabama recommended to you in February 2004. In that letter, you also requested that any additional information that should be considered by EPA in this decision-making process be submitted in September. We have conducted a thorough review of the extensive information included with your June 29 letter, and, as a result, we request that EPA designate only Jefferson County as a nonattainment area for PM2.5.

ADEM has the legal authority to impose reduction measures as necessary in any county near a nonattainment county, regardless of the attainment status of that nearby county. Accordingly, in our February submittal, the only counties that we recommended be designated nonattainment were those with monitoring data exceeding the PM2.5 National Ambient Air Quality Standards (NAAQS). High background PM2.5 levels present in the entire Eastern United States are the major cause of the PM2.5 problem, not emissions generated solely in the local areas. Accordingly, air pollution controls necessary to mitigate regional background levels will be regional or national in nature, and many of these are underway already. In your June 29 letter, you indicate that up to four additional counties are now under consideration for designation as nonattainment. There are no practical or legal reasons for these four additional counties to be designated as nonattainment with the attendant sanctions.

In developing our February 2004 recommendations, we closely followed EPA's guidance of April 1, 2003, which laid out the factors that should be addressed in the PM2.5 attainment/nonattainment designation process. Our analysis of those factors supported our recommendation that only those counties that violated the annual PM2.5 standard, Jefferson and Russell, should be designated nonattainment. In your June 29 letter, you advised us of an additional criterion called the "composite emission score," and that it was considered, along with several other factors, as the basis for your modifications to our recommended nonattainment boundaries. It

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appears that this new factor was given great weight by EPA. We have reviewed this new criterion to the extent possible with the limited information provided by EPA, and would like to point out several problems inherent in the application of this criterion:

- There was no public or scientific review of the complex process used to develop the composite emission scores.
- The inventory used to calculate the composite emission scores used "grown" emissions data not available to us. Some of these grown emissions were projected from the 1996 National Emissions Inventory (NEI), not the more recent 1999 NEI.
- The composite emission score doesn't take into account several factors that should be addressed, such as distance of emissions sources from violating monitors, the size of the counties, and meteorology.

After a thorough review of EPA's recommended modifications and the method used to support those designations, we maintain our original recommendation to designate as nonattainment only those counties with monitoring data exceeding the NAAQS. In addition, we have included supplemental information in the attachments to buttress these recommendations. The discussions which follow will address Lee, Jackson, Walker, and Shelby counties.

Lee County

EPA proposed the inclusion of Lee County in the Phenix City/Columbus, Georgia, nonattainment area. On July 23, 2004, ADEM and the Georgia Environmental Protection Division submitted to EPA a revised PM_{2.5} Monitoring Network Plan for the Phenix City/Columbus area. The plan applies spatial-averaging to the monitors located in the area. Application of this technique results in a three-year average concentration for the spatially-averaged monitors that is below the annual PM_{2.5} standard for 2001-2003. Obviously, approval by EPA of this network plan would result in all counties in the area being designated attainment. We request that EPA immediately approve this monitoring plan revision. Because the status of EPA's action on this plan revision is unknown at this time, we have provided further information to support our position that Lee County should not be included in the Phenix City/Columbus nonattainment area. The following highlights the major reasons for excluding Lee County from the Phenix City/Columbus nonattainment area. Detailed information is presented in Attachment A.

- There are few significant point sources in Lee County.
- NO_x and VOC emissions account for the vast majority (78%) of total emissions in Lee County. The majority of Lee County NO_x emissions are from mobile sources and almost half of the Lee County VOC emissions are from mobile sources. About

68% of all Lee County commuters stay or work in Lee County. Only 5% of all Lee County commuters work in Russell County, where the annual PM2.5 standard is exceeded.

- The wind infrequently blows from the direction of Lee County towards Phenix City on days with high PM2.5 concentrations. Attachment A describes the bases for this conclusion.
- Alabama counties are much larger than Georgia counties, which result in higher "composite emission scores". Russell County alone is almost as large as the two Georgia counties (Muscogee and Harris) which EPA proposed for nonattainment.

Jackson County

EPA proposed the inclusion of Jackson County in the Chattanooga, Tennessee, nonattainment area. The following highlights the major reasons for excluding Jackson County from the Chattanooga nonattainment area. Detailed information is presented in Attachment B.

- The wind infrequently blows from the direction of Jackson County towards Chattanooga on days with high PM2.5 concentrations. Attachment B describes the bases for this conclusion.
- Vehicle Miles Traveled (VMT) in Jackson county accounts for less than 11% of the total VMT for the nonattainment counties proposed by EPA.
- Jackson County has a small population and population density compared to Hamilton County, Tennessee (Chattanooga).
- The vast majority of the NO_x and SO₂ emissions in Jackson County are due to the TVA Widows Creek Steam Plant. ADEM has legal authority to require emission reductions from this utility and other sources to correct air quality problems, regardless of the county's attainment designation.
- SCR and SO₂ scrubbers are installed on the two largest units at the TVA Widows Creek facility. Details on these controls and other controls are presented in Attachment B.

Walker County

EPA proposed the inclusion of Walker County in the Birmingham nonattainment area. The following highlights the major reasons for excluding Walker County from the Birmingham nonattainment area. Detailed information is presented in Attachment C.

- Monitors located between Walker County and the non-attaining monitors in Jefferson county measure PM2.5 concentrations below the NAAQS. This is an indication that Walker County is not contributing to nonattainment in Jefferson County and that nonattainment in Jefferson County may be a localized problem.
- Limited data from a PM2.5 monitor in Walker County indicates attainment.
- Walker County has a very low population density and VMT compared to Jefferson County.
- The overwhelming majority of NO_x and SO₂ emissions in Walker County are due to the Alabama Power Company Gorgas Steam Plant. There are few other point sources in the county. An SCR was installed on the largest unit at Gorgas Steam Plant in 2002. SO₂ scrubbers are scheduled to be in operation on this unit and two smaller units in 2008. Details on these controls and other controls are presented in Attachment C.
- The wind infrequently blows from the direction of Walker County towards Jefferson County on days with high PM2.5 concentrations. Attachment C describes the bases for this conclusion.

Shelby County

EPA proposed the inclusion of Shelby County in the Birmingham nonattainment area. The following highlights the major reasons for excluding Shelby County from the Birmingham nonattainment area. Detailed information is presented in Attachment D.

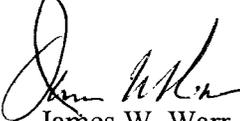
- The monitor in Shelby County measures attainment of the PM2.5 standard, along with five of the six Jefferson County monitors. Data from monitors located between Shelby County and the non-attaining monitors in Jefferson County do not suggest that Shelby County is contributing to nonattainment in Jefferson County. Monitoring data from Jefferson County indicates that the violation may be a localized problem.
- 71% of the MSA population resides in Jefferson County.
- Jefferson County's VMT is 7.5 times that of Shelby County's.
- The vast majority of NO_x and SO₂ emissions in Shelby County are due to the Alabama Power Company Gaston Steam Plant. SCR will be installed on the largest unit at Gaston Steam Plant in 2005, and an SO₂ scrubber is planned for installation on this unit by 2011. Details on these controls and other controls are presented in Attachment D.

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We believe that this analysis provides EPA with adequate information to designate only Jefferson County as nonattainment and we would appreciate your serious consideration of our detailed arguments. Our understanding from your staff is that if any of our recommendations are proposed to be rejected, an opportunity will be provided for further discussions of our proposals or for exploration of other options before EPA initiates formal designations. Accordingly, we hope to hear your response to our recommendations as soon as possible.

If you have any questions, please contact Ron Gore of my staff at (334) 271-7868.

Sincerely,



James W. Warr
Director

JWW/rwg

cc: Ron Gore, Air Division Chief