

Georgia Department of Natural Resources

Environmental Protection Division, Air Protection Branch
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404/363-7000

Lonice C. Barrett, Commissioner
Carol A. Couch, Ph.D.
Director

June 15, 2004

Mr. James I. Palmer, Jr.
Regional Administrator
U.S. EPA, Region 4
161 Forsyth Street, SW
Atlanta, Georgia 30303-3104

Re: Recommended Designations of PM2.5
Nonattainment Areas in Georgia Modification


Dear Mr. Palmer:

The United States Environmental Protection Agency (EPA) promulgated a new Fine Particle National Ambient Air Quality Standard (PM2.5). Section 107 (d)(1) of the Clean Air Act requires each state to submit to the EPA its recommended designation of each area of the State as attainment/unclassifiable or nonattainment under the standard. The Georgia Environmental Protection Division has developed initial recommended designations in accordance with EPA's memorandum dated April 1, 2003. "Designations for the Fine Particle National Ambient Air Quality Standards," as well as other, more recent guidance.

Continued review of the PM2.5 data for the Augusta area and discussion with various EPA personnel has lead to the conclusion that data completeness from the Augusta area is not sufficient for making an attainment/nonattainment decision. EPD is hereby withdrawing the previous recommendation of February 13, 2004, that Richmond County be designated as a nonattainment area for the annual PM2.5 NAAQS and is instead formally requesting that Richmond County be designated as unclassifiable.

It is our expectation that the attached data will be sufficient for you to approve our request regarding the attainment status of Richmond County. If you have any questions or need more information, please contact Ron Methier at (404) 363-7016.

Sincerely



Carol A. Couch, Ph.D.
Director

Review of Augusta Area PM2.5 Monitoring Data for 2001-2003

Georgia EPD maintains two single PM2.5 Federal Reference Method monitoring sites in the Augusta area that are not spatially averaged. These sites have site identification numbers 13-245-0005 and 13-245-0091 and are located at the Medical College and at Bungalow Road. In support of EPD's request for Richmond County to be designated as unclassifiable for the annual PM2.5 standard, we are submitting the following analysis of the data completeness for the Augusta area.

Table 1

Site Name	Percent Recovery of Expected PM2.5 Samples											
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Medical College	90%	73%	90%	87%	97%	97%	16%	81%	94%	93%	87%	90%
Bungalow Rd	58%	81%	90%	94%	87%	83%	84%	94%	97%	97%	87%	90%

On page 15 of the Guideline On Data Handling Conventions for the PM NAAQS under question 8 "How do I make sure my data is complete enough to meet the standards?" it is stated that for a single site: if each quarter has at least 75% of the scheduled sampling days, the annual mean for that year and site is valid. From Table 1 it is noted that the data recoveries did not meet the criteria for the Medical College during the 2nd and 7th quarter and the Bungalow Road site did not meet the minimum recoveries during the 1st quarter.

Question 9 of the Guideline allows for the comparison to the NAAQS using less than complete data as approved by the Regional Administrator. However, the Medical College site with a 16% data recovery during the 7th quarter does not meet the minimum requirement of at least 50% data recovery during all quarters and therefore is unclassifiable.

The Bungalow Road site meets the minimum requirement of at least 50% data recovery during all quarters to allow for data substitution of either co-located PM2.5 data or PM10 data. Seven PM10 events occurred on the same day as missing PM2.5 data. Substituting PM10 for the missing PM2.5, the 1st quarter data recovery increases to 81% as can be seen in Table 2.

Table 2

Combines Percent Recovery of Expected PM2.5 Samples												
Site Name	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Medical College	90%	73%	90%	87%	97%	97%	16%	81%	94%	93%	87%	90%
Bungalow Rd	81% (7 PM10 and 18 pm2.5)	81%	90%	94%	87%	83%	84%	94%	97%	97%	87%	90%

Averaging the four quarters for each year with the inclusion of the PM10 data and then averaging each year, the Design Value for the Bungalow Road site is 14.8 as noted in Table 3, which is in attainment of the NAAQS.

Table 3

Average Concentrations in ug/m3												
Site Name	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Bungalow Road	16.1	14.8	16.7	12.7	14.9	12.6	16.2	13.8	13.0	14.1	16.9	15.5
Annual Average				15.1				14.4				14.9
Design Value												14.8

In conclusion, since Bungalow Road is demonstrating attainment and the data for the Medical College is not complete enough to make a determination of attainment/nonattainment, then the Richmond County Area should be declared unclassifiable.