

PM_{2.5} Air Quality Data Update 2002-2004

The following is a brief summary of EPA's air quality update for PM_{2.5} based on ambient monitoring data for the three-year period, 2002-2004. During this three-year period:

- All of the original 39 areas designated nonattainment for the PM_{2.5} NAAQS in April, 2004 (using 2001-2003 data) failed to meet the PM_{2.5} NAAQS in 2002-04 (Table 1).
- The single area (Greenville-Spartanburg, SC) designated as unclassifiable for the PM_{2.5} NAAQS in April, 2004 failed to meet the PM_{2.5} NAAQS in 2002-04 (Table 1).
- Two additional counties also failed to meet the PM_{2.5} NAAQS in 2002-04 (Table 2).

Two primary PM_{2.5} standards were established by EPA in 1997 for the protection of public health. The annual standard is met when the 3-year average of a site's annual mean concentration is 15.0 µg/m³ (micrograms per cubic meter) or less. The 24-hour standard is met when the 3-year average of a site's annual 98th percentile values is 65 µg/m³ or less. The secondary PM_{2.5} standards, established for the protection of public welfare and the environment, are the same as the primary standards. [Note: Monitoring agencies are permitted to use a spatial average for a set of sites for the primary annual mean standard if the set of sites meets several criteria in EPA guidance and is designated in advance.]

Air quality data from EPA's Air Quality System (AQS) were used to calculate PM_{2.5} design values. The specific calculations are explained in footnotes to the tables below. The data used for these calculations were obtained from AQS on July 7, 2005. To date, no regulatory decisions on attainment status have been made for any area based on these specific calculations. For information concerning these data, contact:

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Table 1. Areas previously designated nonattainment for PM2.5.

State	Nonattainment Area	EPA Region	Status	2002-2004 Annual Design Value ¹	2002-2004 24-hour Design Value ²	Met NAAQS 2002- 2004?
GA	Atlanta	4	Nonattainment	17.5	39	no
MD	Baltimore	3	Nonattainment	16.3	41	no
AL	Birmingham ³	4	Nonattainment	16.8	40	no
OH	Canton-Masillon	5	Nonattainment	16.5	37	no
WV	Charleston	3	Nonattainment	16.4	36	no
TN-GA-						
AL	Chattanooga	4	Nonattainment	15.7	35	no
IL-IN	Chicago-Gary-Lake County	5	Nonattainment	17.2	44	no
OH-KY-						
IN	Cincinnati-Hamilton	4,5	Nonattainment	16.9	41	no
OH	Cleveland-Akron-Lorain	5	Nonattainment	17.6	45	no
OH	Columbus	5	Nonattainment	15.7	38	no
OH	Dayton-Springfield	5	Nonattainment	15.5	37	no
MI	Detroit-Ann Arbor	5	Nonattainment	18.6	43	no
IN	Evansville	4,5	Nonattainment	15.5	37	no
GA	Rome	4	Nonattainment	15.5	35	no
	Greensboro-Winston Salem-					
NC	High Point	4	Nonattainment	15.4	33	no
PA	Harrisburg-Lebanon-Carlisle	3	Nonattainment	15.4	41	no
NC	Hickory-Morganton-Lenoir	4	Nonattainment	15.1	34	no
WV-KY-						
OH	Huntington-Ashland	3,4,5	Nonattainment	15.8	37	no
IN	Indianapolis	5	Nonattainment	16.0	38	no
PA	Johnstown	3	Nonattainment	15.3	40	no
TN	Knoxville	4	Nonattainment	15.7	34	no
PA	Lancaster	3	Nonattainment	16.8	42	no
MT	Libby	8	Nonattainment	15.2	42	no
PA	Liberty-Clairton	3	Nonattainment	20.4	65	no
	Los Angeles-South Coast Air					
CA	Basin	9	Nonattainment	24.8	67	no
KY-IN	Louisville	4,5	Nonattainment	15.9	38	no
GA	Macon	4	Nonattainment	15.5	34	no
MD	Martinsburg, WV-Hagerstown	3	Nonattainment	16.1	39	no
NY-NJ-	New York-N.New Jersey-Long					
CT	Island	1,2	Nonattainment	16.8	50	no
WV-OH	Parkersburg-Marietta	3,5	Nonattainment	15.2	35	no
PA-NJ-						
DE	Philadelphia-Wilmington	2,3	Nonattainment	15.4	39	no
PA	Pittsburgh-Beaver Valley	3	Nonattainment	16.5	52	no
PA	Reading	3	Nonattainment	16.1	42	no
CA	San Joaquin Valley	9	Nonattainment	20.6	62	no
MO-IL	St. Louis	5,7	Nonattainment	16.9	40	no
OH-WV	Steubenville-Weirton	3,5	Nonattainment	17.0	47	no
DC-MD-						
VA	Washington	3	Nonattainment	15.1	42	no

WV-OH	Wheeling	3,5	Nonattainment	15.1	36	no
PA	York	3	Nonattainment	16.9	43	no
SC	Greenville-Spartanburg	4	Unclassifiable	15.8	33	no

Notes:

¹ The annual standard design values shown here are calculated in accordance with 40CFR Part 50, Appendix N. The 3-year average annual mean concentration (annual standard design value) is computed at each site by averaging the daily FRM samples taken each quarter, averaging these quarterly averages to obtain an annual average, and then averaging the three annual averages. In general, EPA regulations require at least 75% data capture in each quarter of a consecutive 3-year period in order for a design value to be valid. However, if the design value is over the standard, less data are required; for the annual standard, 11 samples a quarter are sufficient. EPA regulations and guidance permit data substitution under certain circumstances in order to bolster completeness. (See 40CFR Part 50, Appendix N and also, Guideline on Data Handling for the PM NAAQS.) The information presented in this update are based on data after applying the substitution guidance. Natural and exceptional event-flagged data that have been approved by the Regions (AQS concurrence field set to 'Y') were excluded from the design value calculations.

² The 24-hour standard design values shown here are calculated in accordance with 40CFR Part 50, Appendix N. The 3-year average 98th percentiles (daily standard design value) is computed at each site by determining the 98th percentile of the daily FRM samples taken in a given year for each of the three years, and then averaging these three numbers. In general, EPA regulations require at least 75% data capture in each quarter of a consecutive 3-year period in order for a design value to be valid. However, if the design value is over the standard, less data are required; for the daily standard, only 1 sample a year is sufficient to show nonattainment.

³ Two sites in Jefferson County, AL are encompassed in a Community Monitoring Zone (i.e. utilize spatial averaging); the spatially averaged design value for the CMZ is 17.3, which is the maximum for the county.

SOURCE: U.S. EPA's Air Quality System (AQS) as of July 7, 2005.

Table 2. Additional areas failing to meet the PM2.5 NAAQS in 2002-2004.

State	County	EPA Region	2002-2004 Annual Design Value ¹	2002-2004 24-hour Design Value ²
AK	Fairbanks North Star ³	10	24.6	182
UT	Salt Lake	8	15.2	54

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³ Extensive forest fires in 2004 resulted in high PM2.5 concentrations for Fairbanks. EPA Region 10 has indicated that they will be concurring with the fire events flagged by Alaska in the AQS database. Consequently, Fairbanks North Star Borough does meet the PM2.5 standards. The anticipated revised design values will be 11.5 mg/m³ for the annual standard and 38.6 mg/m³ for the 24-hour standard.

SOURCE: U.S. EPA's Air Quality System (AQS) as of July 7, 2005.