

## Air Quality Data Update 2000-2002 PM<sub>2.5</sub> Air Quality Data

The following is a brief summary of EPA's 2002 air quality update for fine particle (PM<sub>2.5</sub>) air quality monitoring data for the three year period, 2000-2002. During this current three year period,

- " 120 counties failed to meet the annual form of the PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS) in 2000-2002 (Table 1).
- " 8 of the 120 counties also failed to meet the daily form of the PM<sub>2.5</sub> NAAQS (See Note 2 for Table 1).
- " 404 counties met the annual form of the PM<sub>2.5</sub> NAAQS in 2000-2002 (Table 2).

Two primary PM<sub>2.5</sub> 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/m<sup>3</sup> (micrograms per cubic meter) or less. [Note: Monitoring agencies are permitted to use a spatial average for a set of sites in lieu of the statistics for each individual site, if the agency meets several criteria in EPA guidance and the set of sites is designated in advance.] The 24-hour or daily standard is met when the 3-year average of a site's annual 98th percentile values is 65 µg/m<sup>3</sup> or less. The secondary PM<sub>2.5</sub> standards, established for the protection of public welfare and the environment, are the same as the primary standards.

The 3-year averages (of annual means or 98<sup>th</sup> percentiles) are called design values.<sup>1</sup> A design value is only valid if minimum data completeness criteria are met. See Note 1 for Tables 1 & 2 for computation details and associated completeness criteria. The design value assigned to a specific geographic entity (e.g., counties, such as presented in the attached tables) is simply the highest valid design value in that area. Because the incidence of violation is significantly greater for the annual standard than for the daily standard, and since all sites that violate the daily standard also violate the annual standard, only annual standard design values are shown here. The annual standard is considered the controlling one.

Air quality data from EPA's Air Quality System (AQS) were used to calculate the design values. The data used for these calculations were obtained from AQS on July 9, 2003. EPA is requesting that States provide recommendations for designating areas as attainment or nonattainment by February 15, 2004, and expects to finalize designations in December 2004. We intend to base designation decisions on the most recent three years of complete data available (2001-2003). Although the design values presented here are on a county basis, EPA guidance states that presumptive nonattainment areas for PM<sub>2.5</sub> should be based on metropolitan area definitions (e.g., MSA's or CMSA's), which typically consist of more than one county.

For information concerning the data presented in the attached tables, contact:

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**Table 1. Counties That Fail to Meet the PM<sub>2.5</sub> NAAQS in 2000-2002**

State	County	State FIPS Code	County FIPS Code	Design Value <sup>1</sup>
AL	De Kalb	01	49	15.4
AL	Etowah	01	55	16.5
AL	Jefferson <sup>2</sup>	01	73	19.0 <sup>2</sup>
AL	Montgomery	01	101	15.2
AL	Russell	01	113	16.4
AL	Talladega	01	121	15.7
CA	Fresno <sup>3</sup>	06	19	21.9
CA	Imperial	06	25	15.6
CA	Kern <sup>3</sup>	06	29	22.8
CA	Kings <sup>3</sup>	06	31	19.0
CA	Los Angeles <sup>3</sup>	06	37	24.4
CA	Merced	06	47	17.6
CA	Orange	06	59	20.3
CA	Riverside <sup>3</sup>	06	65	28.9
CA	San Bernardino <sup>3</sup>	06	71	25.9
CA	San Diego	06	73	16.4
CA	San Joaquin	06	77	15.3
CA	Stanislaus <sup>3</sup>	06	99	17.7
CA	Tulare <sup>3</sup>	06	107	23.2
CT	New Haven	09	9	16.5
DE	New Castle	10	3	16.5
DC	Washington	11	1	16.4
GA	Bibb	13	21	16.4
GA	Clarke	13	59	17.0
GA	Clayton	13	63	17.3
GA	Cobb	13	67	17.1

<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
GA	De Kalb	13	89	17.3
GA	Floyd	13	115	16.2
GA	Fulton	13	121	19.3
GA	Gwinnett	13	135	16.7
GA	Hall	13	139	16.1
GA	Muscogee	13	215	16.3
GA	Paulding	13	223	15.2
GA	Richmond	13	245	16.0
GA	Walker	13	295	16.4
GA	Wilkinson	13	319	16.1
IL	Cook	17	031	18.1
IL	Du Page	17	043	15.2
IL	Madison	17	119	17.5
IL	St Clair	17	163	17.0
IL	Will	17	197	15.5
IN	Clark	18	19	17.2
IN	Delaware	18	35	15.1
IN	Dubois	18	37	16.7
IN	Elkhart	18	39	15.5
IN	Floyd	18	43	15.5
IN	Howard	18	67	15.1
IN	Lake	18	89	17.7
IN	Marion	18	97	17.0
IN	Vanderburgh	18	163	15.7
IN	Vigo	18	167	15.2
KY	Bell	21	13	16.2
KY	Boyd	21	19	15.7
KY	Bullitt	21	29	15.8
KY	Campbell	21	37	15.3
KY	Fayette	21	67	16.5
KY	Hardin	21	93	15.1
KY	Jefferson	21	111	17.3
KY	Kenton	21	117	15.7
MD	Anne Arundel	24	3	15.8
MD	Baltimore	24	5	15.1
MD	Prince Georges	24	33	17.4
MD	Baltimore (City)	24	510	17.0
MI	Monroe	26	115	15.6

<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
MI	Wayne	26	163	19.9
MO	St Louis (City)	29	510	15.7
MT	Lincoln	30	53	16.4
NJ	Hudson	34	17	15.5
NJ	Union	34	39	15.9
NY	Bronx	36	5	16.1
NY	New York	36	61	17.6
NC	Cabarrus	37	25	15.1
NC	Catawba	37	35	16.4
NC	Davidson	37	57	16.7
NC	Forsyth	37	67	15.6
NC	Mc Dow ell	37	111	15.6
NC	Mecklenburg	37	119	15.8
OH	Butler	39	17	16.7
OH	Cuyahoga	39	35	19.1
OH	Franklin	39	49	17.1
OH	Hamilton	39	61	18.6
OH	Jefferson	39	81	18.2
OH	Lawrence	39	87	16.7
OH	Mahoning	39	99	15.7
OH	Montgomery	39	113	15.6
OH	Portage	39	133	15.1
OH	Scioto	39	145	17.5
OH	Stark	39	151	17.9
OH	Summit	39	153	16.9
OH	Trumbull	39	155	15.6
PA	Allegheny	42	3	21.4
PA	Beaver	42	7	16.0
PA	Berks	42	11	16.7
PA	Cambria	42	21	15.8
PA	Dauphin	42	43	15.6
PA	Delaware	42	45	15.7
PA	Lancaster	42	71	17.1
PA	Philadelphia	42	101	16.8
PA	Washington	42	125	15.7
PA	Westmoreland	42	129	15.6
PA	York	42	133	17.1
SC	Greenville	45	45	15.3

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State	County	State FIPS Code	County FIPS Code	Design Value <sup>1</sup>
TN	Davidson	47	37	15.3
TN	Hamilton	47	65	16.9
TN	Knox	47	93	18.4
TN	Mc Minn	47	107	16.1
TN	Roane	47	145	15.4
TN	Sullivan	47	163	15.7
VA	Bristol	51	520	15.3
VA	Roanoke (City)	51	770	15.1
VA	Salem	51	775	15.3
WV	Berkeley	54	3	16.2
WV	Brooke	54	9	16.8
WV	Cabell	54	11	17.3
WV	Hancock	54	29	17.5
WV	Kanawha	54	39	17.8
WV	Marion	54	49	15.7
WV	Marshall	54	51	16.0
WV	Ohio	54	69	15.3
WV	Wood	54	107	17.0

Notes for Table 1:

1 The annual standard design values show 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 shown in this memo are based on data after applying the substitution guidance.

2 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 19.0, which is the maximum for the county.

3 These eight counties also violate the PM<sub>2.5</sub> daily standard of 65 µg/m<sup>3</sup>. 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.

**Table 2. Counties That Meet the PM<sub>2.5</sub> NAAQS in 2000-2002**

<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
AL	Baldwin	01	003	11.8
AL	Clay	01	027	14.1
AL	Escambia	01	053	13.7
AL	Madison	01	089	14.9
AL	Mobile	01	097	13.2
AL	Shelby	01	117	15.0
AL	Sumter	01	119	13.1
AK	Anchorage	02	020	6.4
AK	Fairbanks North Star	02	090	13.6
AK	Juneau	02	110	6.1
AK	Matanuska-susitna	02	170	6.0
AZ	Maricopa	04	013	10.0
AZ	Santa Cruz	04	023	12.0
AR	Craighead	05	031	12.8
AR	Garland	05	051	12.0
AR	Marion	05	089	9.4
AR	Miller	05	091	13.6
AR	Phillips	5	107	12.9
AR	Polk	05	113	11.7
AR	Pope	05	115	12.9
AR	Pulaski	05	119	14.6
AR	Sebastian	05	131	13.0
AR	Washington	05	143	11.6
CA	Alameda	06	001	12.3
CA	Butte	06	007	14.6
CA	Calaveras	06	009	9.0
CA	Colusa	06	011	9.7
CA	Contra Costa	06	013	11.3
CA	El Dorado	06	017	7.8
CA	Humboldt	06	023	8.8
CA	Monterey	06	053	8.6
CA	Nevada	06	057	8.6
CA	Placer	06	061	12.4
CA	Sacramento	06	067	12.7
CA	San Francisco	06	075	12.0

<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
CA	San Luis Obispo	06	079	9.9
CA	San Mateo	06	081	11.2
CA	Santa Barbara	06	083	9.9
CA	Santa Clara	06	085	11.8
CA	Santa Cruz	06	087	8.5
CA	Shasta	06	089	9.6
CA	Solano	06	095	12.6
CA	Sonoma	06	097	10.5
CA	Sutter	06	101	11.8
CA	Ventura	06	111	14.8
CA	Yolo	06	113	10.5
CO	Arapahoe	08	005	8.9
CO	Boulder	08	013	9.5
CO	Denver	08	031	10.9
CO	Elbert	08	039	4.3
CO	El Paso	08	041	7.7
CO	Gunnison	08	051	6.5
CO	La Plata	08	067	5.3
CO	Larimer	08	069	8.2
CO	Mesa	08	077	7.7
CO	Pueblo	08	101	8.0
CO	Weld	08	123	9.6
CT	Fairfield	09	001	13.7
CT	Hartford	09	003	12.7
CT	New London	09	011	11.8
DE	Kent	10	001	13.4
DE	Suss ex	10	005	14.2
FL	Alachua	12	001	10.7
FL	Broward	12	011	8.7
FL	Citrus	12	017	9.6
FL	Duval	12	031	10.8
FL	Escambia	12	033	12.1
FL	Hillsborough	12	057	12.0
FL	Lee	12	071	8.9
FL	Leon	12	073	13.0
FL	Marion	12	083	10.4
FL	Miami-dade	12	086	10.1
FL	Orange	12	095	10.9

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FL	Palm Beach	12	099	8.0
FL	Pinellas	12	103	11.3
FL	Polk	12	105	11.1
FL	St Lucie	12	111	9.0
FL	Sarasota	12	115	9.9
FL	Seminole	12	117	9.8
FL	Volusia	12	127	9.7
HI	Honolulu	15	003	4.9
HI	Maui	15	009	4.8
ID	Ada	16	001	9.7
ID	Bannock	16	005	9.7
ID	Bonner	16	017	8.7
ID	Bonneville	16	019	7.6
ID	Canyon	16	027	10.2
ID	Kootenai	16	055	9.6
ID	Nez Perce	16	069	9.4
ID	Shoshone	16	079	12.9
ID	Twin Falls	16	083	7.2
IL	Adams	17	001	13.0
IL	Champaign	17	019	13.2
IL	Lake	17	097	13.1
IL	Mc Henry	17	111	13.6
IL	Mc Lean	17	113	14.2
IL	Macon	17	115	14.5
IL	Peoria	17	143	14.2
IL	Randolph	17	157	12.9
IL	Sangamon	17	167	13.4
IN	Allen	18	003	14.8
IN	La Porte	18	091	13.6
IN	Porter	18	127	14.3
IN	St Joseph	18	141	14.1
IA	Black Hawk	19	013	11.4
IA	Cerro Gordo	19	033	10.4
IA	Clinton	19	045	12.1
IA	Emmet	19	063	8.7
IA	Johnson	19	103	11.3
IA	Linn	19	113	11.2
IA	Polk	19	153	10.6

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
IA	Pottawattamie	19	155	10.3
IA	Scott	19	163	12.7
IA	Story	19	169	10.0
IA	Van Buren	19	177	10.3
IA	Woodbury	19	193	9.9
KS	Johnson	20	091	11.9
KS	Linn	20	107	10.7
KS	Sedgwick	20	173	11.3
KS	Shawnee	20	177	10.9
KS	Sumner	20	191	10.4
KS	Wyandotte	20	209	13.5
KY	Carter	21	043	13.1
KY	Christian	21	047	14.1
KY	Franklin	21	073	14.4
KY	Henderson	21	101	14.8
KY	Madison	21	151	14.4
KY	Pike	21	195	14.6
KY	Warren	21	227	14.5
LA	Caddo	22	017	13.1
LA	Calcasieu	22	019	12.0
LA	East Baton Rouge	22	033	13.6
LA	Iberville	22	047	12.9
LA	Jefferson	22	051	12.5
LA	Lafayette	22	055	11.5
LA	Orleans	22	071	12.8
LA	Ouachita	22	073	12.0
LA	Rapides	22	079	12.0
LA	St Bernard	22	087	11.3
LA	Tangipahoa	22	105	12.0
LA	Terrebonne	22	109	10.9
LA	West Baton Rouge	22	121	13.1
ME	Androscoggin	23	001	10.5
ME	Aroostook	23	003	11.2
ME	Cumberland	23	005	11.3
ME	Hancock	23	009	6.1
ME	Kennebec	23	011	10.2
ME	Oxford	23	017	10.0
ME	Penobscot	23	019	9.8

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ME	York	23	031	9.5
MD	Cecil	24	015	13.4
MD	Montgomery	24	031	13.4
MD	Washington	24	043	14.8
MA	Hampden	25	013	13.8
MA	Hampshire	25	015	8.8
MA	Worcester	25	027	12.2
MI	Allegan	26	005	12.3
MI	Berrien	26	021	12.6
MI	Genesee	26	049	12.9
MI	Ingham	26	065	13.5
MI	Kalamazoo	26	077	15.0
MI	Kent	26	081	13.9
MI	Macomb	26	099	13.5
MI	Muskegon	26	121	12.2
MI	Ottawa	26	139	13.5
MI	Saginaw	26	145	10.8
MI	St Clair	26	147	14.0
MI	Washtenaw	26	161	13.4
MN	Dakota	27	037	10.9
MN	Hennepin	27	053	11.1
MN	Ramsey	27	123	12.6
MN	St Louis	27	137	8.5
MN	Scott	27	139	10.9
MS	Adams	28	001	11.6
MS	Bolivar	28	011	13.2
MS	De Soto	28	033	13.1
MS	Forrest	28	035	13.8
MS	Hancock	28	045	10.7
MS	Harrison	28	047	11.7
MS	Hinds	28	049	13.8
MS	Jackson	28	059	12.2
MS	Jones	28	067	15.0
MS	Lauderdale	28	075	13.7
MS	Lee	28	081	13.1
MS	Rankin	28	121	13.6

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
MS	Scott	28	123	12.1
MS	Warren	28	149	12.8
MO	Buchanan	29	021	12.6
MO	Cass	29	037	11.4
MO	Cedar	29	039	11.7
MO	Clay	29	047	13.0
MO	Greene	29	077	12.4
MO	Jackson	29	095	13.9
MO	Jasper	29	097	14.0
MO	Jefferson	29	099	14.9
MO	Monroe	29	137	11.2
MO	St Charles	29	183	14.6
MO	Ste Genevieve	29	186	14.1
MO	St Louis	29	189	14.5
MT	Cascade	30	013	6.0
MT	Flathead	30	029	8.3
MT	Gallatin	30	031	9.2
MT	Lake	30	047	10.0
MT	Lewis and Clark	30	049	8.6
MT	Missoula	30	063	11.4
MT	Ravalli	30	081	10.7
MT	Rosebud	30	087	7.1
MT	Sanders	30	089	6.5
MT	Yellowstone	30	111	7.5
NE	Cass	31	025	10.3
NE	Douglas	31	055	11.0
NE	Hall	31	079	8.6
NE	Lancaster	31	109	9.9
NE	Lincoln	31	111	7.0
NE	Scotts Bluff	31	157	6.1
NV	Clark	32	003	10.9
NV	Washoe	32	031	9.5
NJ	Gloucester	34	015	14.2
NJ	Mercer	34	021	14.5
NJ	Middlesex	34	023	12.7
NJ	Warren	34	041	13.6

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
NM	Bernalillo	35	001	6.4
NM	Chaves	35	005	6.7
NM	Dona Ana	35	013	11.2
NM	Grant	35	017	6.0
NM	Lea	35	025	6.7
NM	Sandoval	35	043	4.9
NM	San Juan	35	045	6.4
NM	Santa Fe	35	049	4.9
NY	Albany	36	001	10.8
NY	Broome	36	007	11.5
NY	Chautauqua	36	013	11.3
NY	Dutchess	36	027	11.3
NY	Erie	36	029	15.0
NY	Essex	36	031	6.4
NY	Kings	36	047	14.6
NY	Monroe	36	055	11.6
NY	Nassau	36	059	12.3
NY	Niagara	36	063	12.6
NY	Oneida	36	065	12.0
NY	Onondaga	36	067	11.8
NY	Orange	36	071	11.7
NY	Richmond	36	085	14.4
NY	St. Lawrence	36	089	8.6
NY	Schenectady	36	093	11.0
NY	Steuben	36	101	9.9
NY	Suffolk	36	103	12.5
NC	Alamance	37	001	14.4
NC	Buncombe	37	021	14.2
NC	Caswell	37	033	14.0
NC	Chatham	37	037	12.8
NC	Cumberland	37	051	14.7
NC	Duplin	37	061	12.6
NC	Durham	37	063	14.7
NC	Gaston	37	071	14.7
NC	Haywood	37	087	14.6
NC	Lenoir	37	107	12.0

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
NC	Mitchell	37	121	14.8
NC	Montgomery	37	123	13.0
NC	New Hanover	37	129	11.4
NC	Onslow	37	133	11.6
NC	Orange	37	135	13.6
NC	Pasquotank	37	139	12.0
NC	Pitt	37	147	12.9
NC	Swain	37	173	13.4
NC	Wake	37	183	14.6
NC	Wayne	37	191	14.6
ND	Burke	38	013	5.6
ND	Burleigh	38	015	6.6
ND	Cass	38	017	7.9
ND	Mercer	38	057	6.0
OH	Lake	39	085	13.8
OH	Lucas	39	095	14.9
OK	Carter	40	019	10.3
OK	Comanche	40	031	9.4
OK	Custer	40	039	9.0
OK	Garfield	40	047	10.2
OK	Kay	40	071	10.6
OK	Mayes	40	097	11.9
OK	Muskogee	40	101	12.1
OK	Oklahoma	40	109	10.7
OK	Ottawa	40	115	11.9
OK	Payne	40	119	10.2
OK	Pittsburg	40	121	11.4
OK	Tulsa	40	143	12.6
OR	Benton	41	003	7.6
OR	Columbia	41	009	6.5
OR	Harney	41	025	9.4
OR	Jackson	41	029	12.0
OR	Klamath	41	035	11.8
OR	Lake	41	037	7.7
OR	Lane	41	039	13.7
OR	Linn	41	043	8.5

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
OR	Marion	41	047	8.4
OR	Multnomah	41	051	9.0
OR	Umatilla	41	059	9.0
OR	Union	41	061	6.8
OR	Wasco	41	065	8.3
OR	Washington	41	067	9.8
PA	Adams	42	001	13.3
PA	Lackawanna	42	069	12.4
PA	Lehigh	42	077	14.3
PA	Luzerne	42	079	12.9
PA	Montgomery	42	091	14.2
PA	Perry	42	099	12.7
RI	Kent	44	003	9.0
RI	Providence	44	007	11.3
RI	Washington	44	009	8.8
SC	Beaufort	45	013	11.4
SC	Charleston	45	019	12.4
SC	Chesterfield	45	025	12.7
SC	Edgefield	45	037	13.3
SC	Florence	45	041	13.3
SC	Georgetown	45	043	13.5
SC	Greenwood	45	047	14.1
SC	Lexington	45	063	14.6
SC	Oconee	45	073	11.6
SC	Richland	45	079	13.8
SC	Spartanburg	45	083	14.5
SD	Brookings	46	011	9.1
SD	Minnehaha	46	099	9.6
SD	Pennington	46	103	7.9
TN	Dyer	47	045	12.7
TN	Lawrence	47	099	12.6
TN	Madison	47	113	13.5
TN	Maury	47	119	13.6
TN	Montgomery	47	125	13.3
TN	Putnam	47	141	14.4
TN	Shelby	47	157	14.9

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
TN	Sumner	47	165	14.3
TX	Bowie	48	037	14.3
TX	Cameron	48	061	9.7
TX	Collin	48	085	11.6
TX	Dallas	48	113	13.6
TX	El Paso	48	141	10.1
TX	Galveston	48	167	11.1
TX	Gregg	48	183	12.6
TX	Harris	48	201	14.1
TX	Lubbock	48	303	7.5
TX	Tarrant	48	439	12.3
TX	Travis	48	453	11.5
TX	Webb	48	479	10.8
UT	Davis	49	011	10.0
UT	Salt Lake	49	035	14.6
UT	Tooele	49	045	8.1
UT	Utah	49	049	11.2
UT	Weber	49	057	10.3
VT	Bennington	50	003	10.2
VT	Chittenden	50	007	9.3
VT	Rutland	50	021	11.6
VT	Washington	50	023	10.6
VA	Arlington	51	013	14.9
VA	Charles City	51	036	13.3
VA	Chesterfield	51	041	14.2
VA	Fairfax	51	059	13.9
VA	Henrico	51	087	14.0
VA	Loudoun	51	107	13.8
VA	Page	51	139	13.4
VA	Chesapeake	51	550	13.0
VA	Hampton	51	650	12.9
VA	Newport News	51	700	12.4
VA	Norfolk	51	710	13.3
VA	Virginia Beach	51	810	12.8
WA	Benton	53	005	7.2
WA	Clark	53	011	10.1

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<b>State</b>	<b>County</b>	<b>State FIPS Code</b>	<b>County FIPS Code</b>	<b>Design Value<sup>1</sup></b>
WA	King	53	033	11.8
WA	Pierce	53	053	11.7
WA	Snohomish	53	061	11.8
WA	Spokane	53	063	10.4
WA	Thurston	53	067	9.8
WA	Whatcom	53	073	7.8
WV	Harrison	54	033	14.5
WV	Mercer	54	055	13.4
WV	Monongalia	54	061	15.0
WV	Raleigh	54	081	13.5
WV	Summers	54	089	10.4
WI	Brown	55	009	11.6
WI	Dane	55	025	12.8
WI	Dodge	55	027	11.4
WI	Door	55	029	7.6
WI	Douglas	55	031	8.0
WI	Grant	55	043	11.7
WI	Jefferson	55	055	11.8
WI	Kenosha	55	059	11.9
WI	Manitowoc	55	071	10.1
WI	Milwaukee	55	079	13.7
WI	Outagamie	55	087	11.1
WI	Ozaukee	55	089	11.3
WI	St Croix	55	109	9.9
WI	Vilas	55	125	5.8
WI	Waukesha	55	133	13.4
WI	Winnebago	55	139	10.8
WI	Wood	55	141	10.4
WY	Campbell	56	005	6.3
WY	Laramie	56	021	5.1
WY	Sheridan	56	033	11.1
PR	Bayamon	72	021	7.0
PR	Fajardo	72	053	5.2
PR	Guayama	72	057	6.9
PR	Guayanilla	72	059	7.2
PR	Guaynabo	72	061	9.6



State	County	State FIPS Code	County FIPS Code	Design Value <sup>1</sup>
PR	Mayaguez	72	097	8.1
PR	Ponce	72	113	7.6
PR	San Juan	72	127	9.4

Notes for Table 2:

<sup>1</sup> The annual standard design values show 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. 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 shown in this memo are based on data after applying the substitution guidance.