

PM₁₀ Air Quality Data Update 2007-2009 Design Values

The following is a brief summary of EPA's air quality update for PM₁₀ based on ambient monitoring data for the three-year period, 2007-2009. During this three-year period:

- Twenty of the original 88 areas designated nonattainment for the PM₁₀ NAAQS, including three areas that were subsequently redesignated to attainment (San Joaquin Valley, CA; Lamar, CO, and Pagosa Springs, CO) failed to meet the PM₁₀ NAAQS in 2007-2009. Thirty-five of the original 88 areas designated nonattainment for the PM₁₀ NAAQS met the PM₁₀ NAAQS in 2007-2009. Thirty-three of the original 88 areas designated nonattainment for the PM₁₀ NAAQS had incomplete or no data for 2007-2009. (Table 1)
- Thirty-three additional counties (or parts thereof), outside of the original 88 designated nonattainment areas, also failed to meet the PM₁₀ NAAQS in 2007-2009 (Table 2).

Two primary PM₁₀ standards were established by the EPA in 1987 for the protection of public health. The 1987 PM₁₀ NAAQS consisted of both a short-term (24-hour) standard and a long-term (annual) standard. The EPA set the 24-hour PM₁₀ standard at 150 micrograms per cubic meter (µg/m³) and the annual PM₁₀ standard at 50 µg/m³. After the latest review of the PM NAAQS, the EPA revoked the annual PM₁₀ standard effective December 2007. Compliance with the 24-hour standard is judged on the basis of the most recent three years of ambient air quality monitoring data. The 24-hour PM₁₀ standard is not met at a monitoring site if the average number of estimated exceedances of the level of the standard is greater than 1.0 (1.05 rounds up).

Air quality data from EPA's Air Quality System (AQS) were used to calculate PM₁₀ estimated exceedances. The specific calculations are explained in footnotes to the tables. Data used for these calculations were obtained from AQS on January 19, 2011. For information concerning these data and/or calculations, contact:

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Mark Schmidt
U.S. Environmental Protection Agency
Air Quality Trends and Analysis Group (C304-01)
Research Triangle Park, NC 27711
(919) 541-2416, (919) 541-3613 (FAX)
Schmidt.mark@epa.gov

Table 1. Areas previously designated nonattainment for the PM₁₀ 1987 NAAQS, 2007-2009.

AQS Data Query: 01/19/2011; Last updated: 03/17/2011

Designated Area	State	EPA Region	Designation Status ¹	Area Classification	2007-2009 Expected	Met NAAQS 2007-
					Number of Exceedances ^{2, 3, 4, 5, 6, 7}	2009? ^{6, 7}
Eagle River	AK	10	Nonattainment	Moderate	2.0	no
Juneau	AK	10	Nonattainment	Moderate	0.0	incomplete
Ajo	AZ	9	Nonattainment	Moderate	0.0	incomplete
Bullhead City	AZ	9	Maintenance	Moderate	0.0	yes
Hayden ⁸	AZ	9	Nonattainment	Moderate	3.4	no
Miami ⁸	AZ	9	Nonattainment	Moderate	0.0	yes
Nogales	AZ	9	Nonattainment	Moderate	9.7	no
Paul Spur / Douglas	AZ	9	Nonattainment	Moderate	2.0	no
Payson	AZ	9	Maintenance	Moderate	0.0	yes
Phoenix	AZ	9	Nonattainment	Serious	6.1	no
Rillito	AZ	9	Nonattainment	Moderate	2.0	no
Yuma	AZ	9	Nonattainment	Moderate	7.9	no
Coachella Valley	CA	9	Nonattainment	Serious	14.1	no
Coso Junction ⁹	CA	9	Maintenance	Moderate	1.0	yes
East Kern ¹⁰	CA	9	Nonattainment	Serious	0.0	incomplete
Imperial Valley	CA	9	Nonattainment	Moderate	10.6	no
Indian Wells Valley ⁹	CA	9	Maintenance	Moderate	0.0	yes
Mammoth Lakes	CA	9	Nonattainment	Moderate	0.0	yes
Mono Basin	CA	9	Nonattainment	Moderate	16.4	no
Owens Valley	CA	9	Nonattainment	Serious	11.3	no
Sacramento County	CA	9	Nonattainment	Moderate	0.0	yes
San Bernardino county (part)	CA	9	Nonattainment	Moderate	3.1	no
San Joaquin Valley ¹⁰	CA	9	Maintenance	Serious	3.5	no
South Coast Air Basin	CA	9	Nonattainment	Serious	9.7	no
Trona ⁹	CA	9	Nonattainment	Moderate	0.8	incomplete
Aspen	CO	8	Maintenance	Moderate	0.0	yes
Canon City	CO	8	Maintenance	Moderate	0.0	yes
Denver	CO	8	Maintenance	Moderate	0.0	yes
Lamar	CO	8	Maintenance	Moderate	1.7	no
Pagosa Springs	CO	8	Maintenance	Moderate	1.4	no
Steamboat Springs	CO	8	Maintenance	Moderate	0.0	incomplete
Telluride	CO	8	Maintenance	Moderate	0.0	yes
New Haven	CT	1	Maintenance	Moderate		no data
Boise	ID	10	Maintenance	Moderate	0.0	incomplete
Fort Hall	ID	10	Nonattainment	Moderate	1.0	incomplete
Pinehurst	ID	10	Nonattainment	Moderate	0.0	yes
Portneuf Valley	ID	10	Maintenance	Moderate	0.6	incomplete
Sandpoint	ID	10	Nonattainment	Moderate	0.0	incomplete
Shoshone County	ID	10	Nonattainment	Moderate	0.0	yes
Granite City	IL	5	Maintenance	Moderate	0.0	yes
Lyons Township	IL	5	Maintenance	Moderate	0.0	yes
Oglesby	IL	5	Maintenance	Moderate	0.0	yes
Southeast Chicago	IL	5	Maintenance	Moderate	0.0	yes
East Chicago, Hammon	IN	5	Maintenance	Moderate	0.3	yes
Vermillion	IN	5	Maintenance	Moderate		no data
Presque Isle	ME	1	Maintenance	Moderate	0.0	yes
Detroit	MI	5	Maintenance	Moderate	0.3	yes
Rochester	MN	5	Maintenance	Moderate		no data
Saint Paul	MN	5	Maintenance	Moderate	0.0	incomplete
Butte	MT	8	Nonattainment	Moderate	0.0	incomplete
Columbia Falls	MT	8	Nonattainment	Moderate	0.0	incomplete
Kalispell	MT	8	Nonattainment	Moderate	0.0	incomplete
Lame Deer	MT	8	Nonattainment	Moderate	0.0	yes
Libby	MT	8	Nonattainment	Moderate	0.0	yes
Missoula	MT	8	Nonattainment	Moderate	0.0	incomplete
Polson	MT	8	Nonattainment	Moderate	0.0	incomplete
Ronan	MT	8	Nonattainment	Moderate	0.0	incomplete
Thompson Falls	MT	8	Nonattainment	Moderate	0.0	incomplete
Whitefish	MT	8	Nonattainment	Moderate	0.0	incomplete
Anthony	NM	6	Nonattainment	Moderate	8.0	no
Las Vegas	NV	9	Nonattainment	Serious	0.0	incomplete
Reno	NV	9	Nonattainment	Serious	0.0	yes
New York	NY	2	Nonattainment	Moderate		no data
Cuyahoga County	OH	5	Maintenance	Moderate	0.0	yes
Mingo Junction	OH	5	Maintenance	Moderate	0.0	yes

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Designated Area	State	EPA Region	Designation Status ¹	Area Classification	2007-2009 Expected	Met NAAQS 2007-
					Number of Exceedances ^{2, 3, 4, 5, 6, 7}	2009? ^{6, 7}
Eugene/Springfield	OR	10	Nonattainment	Moderate	0.0	yes
Grants Pass	OR	10	Maintenance	Moderate	<u>0.0</u>	incomplete
Klamath Falls	OR	10	Maintenance	Moderate	0.0	yes
La Grande	OR	10	Maintenance	Moderate		no data
Lakeview	OR	10	Maintenance	Moderate		no data
Medford	OR	10	Maintenance	Moderate	0.0	yes
Oakridge	OR	10	Nonattainment	Moderate	0.0	yes
Clairton	PA	3	Maintenance	Moderate	0.0	yes
Guaynabo	PR	2	Maintenance	Moderate	<u>0.0</u>	incomplete
El Paso	TX	6	Nonattainment	Moderate	2.7	no
Ogden	UT	8	Nonattainment	Moderate	0.3	yes
Salt Lake County	UT	8	Nonattainment	Moderate	2.4	no
Utah County	UT	8	Nonattainment	Moderate	2.0	no
Kent	WA	10	Maintenance	Moderate	<u>0.0</u>	incomplete
Olympia	WA	10	Maintenance	Moderate		no data
Seattle	WA	10	Maintenance	Moderate	<u>0.0</u>	incomplete
Spokane	WA	10	Maintenance	Moderate	<u>0.3</u>	incomplete
Tacoma	WA	10	Maintenance	Moderate	<u>0.0</u>	incomplete
Walla Walla	WA	10	Maintenance	Serious	0.8	yes
Yakima	WA	10	Maintenance	Moderate	0.0	yes
Follansbee	WV	3	Maintenance	Moderate	0.0	yes
Weirton	WV	3	Maintenance	Moderate	0.0	yes
Sheridan	WY	8	Nonattainment	Moderate	<u>0.8</u>	incomplete

Notes:

1. Area designation status as of March 17, 2011.

2. The level of the 1987 NAAQS for PM₁₀ is 150 micrograms per cubic meter (µg/m³). The design value for the PM₁₀ NAAQS is the 3-year average expected number of exceedances.

3. The design values shown here are computed for the latest design value period using Federal Reference Method or equivalent data reported by States, Tribes, and local agencies to EPA's Air Quality System (AQS) as of 1/19/2011. Concentrations flagged by States, Tribes, and local agencies as exception events (e.g., high winds, wildfires, volcanic eruptions, construction) and concurred by the associated EPA Regional Office are not included in the calculation of these design values.

4. In situations where there are two or more FRM/FEM PM₁₀ monitors operating at the same site location (i.e., "collocated" monitors), each distinct monitor - method combination (i.e., the "primary" monitor(s) ... each POC with a different sampling / analysis methodology code) is used for NAAQS comparisons (assuming all regulatory requirements were met). For this data release, the primary monitor was determined according to the primary monitor designation/indicator in the AQS "monitor_collocations" table. If no such designation was present at the time of the data extraction, then each monitor-method(s) with the lowest numbered POC was assumed to be the primary monitor(s). In this Table (and also in Tables 2 and 3), only the primary monitors were considered for selection.

5. Underlined values are based on incomplete data and are generally not valid for regulatory usage. Either there are no other sites in the area with complete data for this three-year period or a complete site(s) is located in the area but has an expected estimated exceedance value of zero and an incomplete monitor in the area registered the non-zero value shown.

6. In some cases, a conclusion that an area has an expected number of exceedances greater than 1.0 and accordingly has not met the PM₁₀ NAAQS in 2007-2009 is based on monitor data that did not meet the minimum 75 percent data capture requirement per quarter (for all 12 quarters). Expected exceedance values greater than 1.0 based on incomplete data are considered valid for regulatory usage per 40 CFR Part 50 Appendix K 2.3(c) if substitution of zeros for the incomplete (e.g., unmonitored) periods results in a 3-year exceedance "test" metric that still exceeds 1.0. These cases are identified in the monitor listing table by an entry in the "Test ExEx" column. If the "Test ExEx" value is greater than 1.0 then the entry in the "Met NAAQS 2007-2009?" column on this table will be "no" and the "2007-2009 Expected Number of Exceedances" entry will not be underlined. If the "Test ExEx" value is not greater than 1.0 then the entry in the "Met NAAQS 2007-2009?" column will be "incomplete" and the "2007-2009 Expected Number of Exceedances" entry will be underlined.

7. Note that in some areas with "no data", monitoring has been discontinued, with approval from the EPA, because the affecting sources have been shut down. For example, in the Vermillion, IN the monitor for that area last reported data in 1998; there are no longer any significant sources (former coal mine) so the Region does not think it is necessary to monitor in this rural location.

8. On March 28, 2007, EPA approved State of Arizona's boundary redesignation of the Hayden/Miami PM₁₀ nonattainment area into two separate PM₁₀ nonattainment areas: Hayden and Miami. EPA also made the determination that the Miami PM₁₀ nonattainment area is attaining the PM₁₀ national ambient air quality standard. Source: <http://www.epa.gov/oar/oaqps/greenbk/7214422.html>

9. On August 6, 2002, EPA finalized certain actions affecting the Searles Valley, California, PM₁₀ nonattainment area, which is located in the rural high desert and includes portions of Inyo, Kern, and San Bernardino Counties. The action splits the Searles Valley nonattainment area into three separate areas: Coso Junction, Indian Wells Valley and Trona. EPA's action also determines that the Trona area attained the PM₁₀ standards by December 31, 1994. On May 7, 2003, EPA finalized approval of the Indian Wells Moderate Area and Maintenance Plan and redesignated the area from nonattainment to attainment for particulate

Table 2. Violating Monitors in Areas Not Previously Designated Nonattainment for the PM₁₀ 1987 NAAQS
 AQS Data Query: 01/19/2011; Last updated: 03/17/2011

State	County	2007-2009 Expected		Site ID	POC	CBSA
		EPA Region	Number of Exceedances ^{1,2,3,4}			
AL	Jefferson	4	1.3	010736004	1	Birmingham-Hoover, AL
AK	Matanuska Susitna	10	3.4	021700008	1	Anchorage, AK
AZ	Maricopa	9	3.0	040134011	1	Phoenix-Mesa-Scottsdale, AZ
AZ	Mohave	9	2.8	040151011	1	Lake Havasu City-Kingman, AZ
AZ	Pima	9	2.0	040191026	1	Tucson, AZ
AZ	Pinal	9	4.7	040210001	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	2.0	040213004	1	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	16.4	040213008	1	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	17.8	040213008	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	17.6	040213009	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	12.5	040213010	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	6.5	040213011	1	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	15.6	040213011	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	112.9	040213013	1	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	139.8	040213013	3	Phoenix-Mesa-Scottsdale, AZ
AZ	Pinal	9	6.6	040217004	1	Phoenix-Mesa-Scottsdale, AZ
CA	Inyo	9	3.6	060270028	1	Bishop, CA
CA	Inyo	9	4.5	060270029	1	Bishop, CA
CA	Los Angeles	9	2.2	060379033	1	Los Angeles-Long Beach-Santa Ana, CA
CA	Mendocino	9	3.5	060450006	1	Ukiah, CA
CA	San Diego	9	4.1	060732007	1	San Diego-Carlsbad-San Marcos, CA
CA	Santa Barbara	9	2.0	060830008	1	Santa Barbara-Santa Maria-Goleta, CA
CA	Santa Barbara	9	2.2	060831025	1	Santa Barbara-Santa Maria-Goleta, CA
CA	Shasta	9	2.2	060890004	2	Redding, CA
CA	Siskiyou	9	4.6	060932001	2	
CA	Trinity	9	9.3	061050002	1	
CA	Ventura	9	2.0	061113001	1	Oxnard-Thousand Oaks-Ventura, CA
CA	Yolo	9	2.0	061131003	1	Sacramento--Arden-Arcade--Roseville, CA
CO	Alamosa	8	1.5	080030003	1	
CO	Garfield	8	1.4	080450005	1	
CO	La Plata	8	2.2	080670004	1	Durango, CO
IN	Whitley	5	2.2	181830002	1	Fort Wayne, IN
MT	Big Horn	8	3.0	300030011	1	
MT	Jefferson	8	2.8	300430022	2	Helena, MT
MT	Missoula	8	3.3	300630034	1	Missoula, MT
NV	Nye	9	5.2	320230014	1	Pahrump, NV
NM	Dona Ana	6	7.7	350130017	2	Las Cruces, NM
NM	Dona Ana	6	5.7	350130019	1	Las Cruces, NM
NM	Dona Ana	6	10.5	350130020	1	Las Cruces, NM
NM	Dona Ana	6	3.7	350130021	1	Las Cruces, NM
NM	Dona Ana	6	1.7	350130024	1	Las Cruces, NM
NM	Luna	6	8.7	350290003	1	Deming, NM
OH	Wyandot	5	6.1	391750008	1	
OK	Tulsa	6	2.0	401430110	1	Tulsa, OK
TX	Harris	6	3.0	482011035	1	Houston-Sugar Land-Baytown, TX
WA	Stevens	10	2.4	530650004	3	
WY	Albany	8	1.7	560010800	3	Laramie, WY
WY	Platte	8	2.5	560310805	1	
WY	Sweetwater	8	2.0	560370014	1	Rock Springs, WY
WY	Sweetwater	8	1.6	560370868	2	Rock Springs, WY

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