

## **SO<sub>2</sub> Air Quality Data Update 2007-2008 Design Values**

The following is a brief summary of EPA's 2008 air quality update for sulfur dioxide (SO<sub>2</sub>) based on monitoring data for the period of 2007 through 2008.

During this period:

- All of the original 54 areas designated non-attainment for the annual SO<sub>2</sub> NAAQS in 1990 that have complete monitoring met the SO<sub>2</sub> NAAQS in 2008.
- Two monitoring sites in the Hawaii Volcanoes National Park recorded violations of the annual and/or 24-hour primary SO<sub>2</sub> NAAQS in 2007 and/or 2008. Volcanic eruptions can be a source of SO<sub>2</sub> emissions. The state of Hawaii has requested that these data be excluded from regulatory use under the provisions of EPA's Exceptional Event rule, and EPA is considering this request.
- There were no additional areas not meeting the SO<sub>2</sub> NAAQS.

EPA has two primary National Ambient Air Quality Standards for sulfur dioxide: (1) annual arithmetic mean concentration of 0.03 parts per million (ppm), and (2) a 24-hour average concentration of 0.14 ppm (not to be exceeded more than once per year).

Air quality data from EPA's Air Quality System (AQS) were used to calculate SO<sub>2</sub> design values. The data used for these calculations were obtained from AQS on July 9, 2009. As of August 26, 2009, no regulatory decisions on attainment status have been made for any area based on these specific calculations.

For information concerning these data, contact:

Rhonda Thompson  
U.S. Environmental Protection Agency  
Air Quality Analysis Group (C304-04)  
Research Triangle Park, NC 27711  
(919) 541-5538, (919) 541-3613  
[Thompson.Rhonda@epa.gov](mailto:Thompson.Rhonda@epa.gov)

**Table 1. Areas previously designated nonattainment for Sulfur Dioxide NAAQS, Final 2008**

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Designation Status</u>	<u>Standard</u>	<u>Primary Annual Standard</u>		<u>Primary 24-hour Standard</u>	
					<u>2007-2008 Ann Mean Design Value (1)</u>	<u>Met NAAQS?</u>	<u>2007-2008 24Hr Design Value (2)</u>	<u>Met NAAQS?</u>
Colbert County (part); TVA Colbert Plant	AL	4	Maintenance	Secondary	0.0030	Yes	0.0153	Yes
Lauderdale County (part); TVA Colbert Plant	AL	4	Maintenance	Secondary		Incomplete		Incomplete
Ajo, AZ	AZ	9	Maintenance	Primary		no monitor		Incomplete
Douglas, AZ	AZ	9	Maintenance	Primary		no monitor		Incomplete
Hayden (Pinal County), AZ	AZ	9	Nonattainment	Primary	0.0112	Yes	0.0475	Yes
Miami (Gila County), AZ	AZ	9	Maintenance	Primary	0.0045	Yes	0.0308	Yes
Morenci, AZ	AZ	9	Maintenance	Primary		no monitor		Incomplete
San Manuel (Pinal County), AZ	AZ	9	Maintenance	Primary		Incomplete		Incomplete
Peoria County: Hollis twp	IL	5	Maintenance	Primary/ Secondary		no monitor		no monitor
Peoria County: Peoria	IL	5	Maintenance	Primary	0.0028	Yes	0.0249	Yes
Tazewell County: Groveland twp	IL	5	Maintenance	Primary		no monitor		no monitor
Lake County, IN	IN	5	Maintenance	Primary	0.0051	Yes	0.0206	Yes
La Porte Co, IN	IN	5	Maintenance	Primary	0.0028	Yes	0.0096	Yes
Marion County, IN	IN	5	Maintenance	Primary	0.0037	Yes	0.0120	Yes
Vigo Co, IN	IN	5	Maintenance	Primary	0.0083	Yes	0.0619	Yes
Wayne Co, IN	IN	5	Maintenance	Primary	0.0059	Yes	0.0308	Yes
Muscatine Co, IA	IA	7	Maintenance	Primary	0.0069	Yes	0.0779	Yes
Boyd County (part), KY	KY	4	Maintenance	Primary		no monitor		no monitor
Muhlenberg County, KY	KY	4	Maintenance	Secondary		Incomplete		Incomplete
AQCR 109-Millinocket, ME	ME	1	Maintenance	Primary		Incomplete		Incomplete
Minneapolis-St Paul, MN	MN	5	Maintenance	Primary	0.0018	Yes	0.0040	Yes
Olmsted; City of Rochester	MN	5	Maintenance	Primary		Incomplete		Incomplete
East Helena Area, MT	MT	8	Nonattainment	Primary/		Incomplete		Incomplete

**Table 1. Areas previously designated nonattainment for Sulfur Dioxide NAAQS, Final 2008**

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Designation Status</u>	<u>Standard</u>	<u>Primary Annual Standard</u>		<u>Primary 24-hour Standard</u>	
					<u>2007-2008 Ann Mean Design Value (1)</u>	<u>Met NAAQS?</u>	<u>2007-2008 24Hr Design Value (2)</u>	<u>Met NAAQS?</u>
Laurel Area, MT	MT	8	Nonattainment	Secondary		Incomplete		Incomplete
NJ portion of the NE Penn-Upper Del Valley Interstate AQCR: (part)	NJ	2	Nonattainment	Primary/Secondary		no monitor		no monitor Incomplete for 2008 only
Grant Co, NM (35017)	NM	6	Maintenance	Primary	0.001	Yes	0.0013	Incomplete
Central Steptoe Valley, NV	NV	9	Maintenance	Primary		no monitor		Incomplete
Coshocton County; Franklin Township, OH	OH	5	Maintenance	Primary		no monitor		no monitor
Cuyahoga Co, OH	OH	5	Maintenance	Primary	0.0079	Yes	0.0293	Yes
Gallia County; Addison Township, OH	OH	5	Maintenance	Secondary		no monitor		no monitor
Steubenville & Mingo Junction, OH	OH	5	Maintenance	Primary	0.006	Yes	0.0566	Yes
Lake Co, OH	OH	5	Maintenance	Primary	0.0046	Yes	0.0152	Yes
Lorain County (part), OH	OH	5	Maintenance	Primary		Incomplete		Incomplete
Lucas Co, OH (39095)	OH	5	Maintenance	Primary	0.0058	Incomplete for 2008 only	0.0250	Incomplete for 2008 only
Morgan County: Center Township, OH	OH	5	Maintenance	Secondary	0.0069	Yes	0.0404	Yes
Washington County: Waterford Township, OH	OH	5	Maintenance	Secondary		Incomplete		Incomplete
Hazelwood, PA (42003)	PA	3	Maintenance	Primary	0.0063	Incomplete for 2008 only	0.0231	Incomplete for 2008 only
Armstrong County, PA	PA	3	Nonattainment	Primary		no monitor		no monitor
Warren Co, PA	PA	3	Maintenance	Primary/	0.0042	Yes	0.0368	Yes

**Table 1. Areas previously designated nonattainment for Sulfur Dioxide NAAQS, Final 2008**

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Designation Status</u>	<u>Standard</u>	<u>Primary Annual Standard</u>		<u>Primary 24-hour Standard</u>	
					<u>2007-2008 Ann Mean Design Value (1)</u>	<u>Met NAAQS?</u>	<u>2007-2008 24Hr Design Value (2)</u>	<u>Met NAAQS?</u>
Conewango Township (Warren County), PA	PA	3	Maintenance	Primary	0.0094	Yes	0.0493	Yes
Benton County; (part) TVA Johnsonville, TN	TN	4	Maintenance	Primary/ Secondary		Incomplete		Incomplete
Humphreys Co, TN	TN	4	Maintenance	Secondary		Incomplete		Incomplete
Polk County, TN	TN	4	Maintenance	Primary/ Secondary		Incomplete		Incomplete
Salt Lake Co, UT	UT	8	Nonattainment	Secondary	0.0034	Yes	0.0671	Yes
Tooele County (part)	UT	8	Nonattainment	Primary/ Secondary		Incomplete		Incomplete
AQCR 237: Brown County: Green Bay sub-city area, WI	WI	5	Maintenance	Primary		Incomplete		Incomplete
AQCR 238: Marathon County:, WI	WI	5	Maintenance	Secondary		Incomplete		Incomplete
Milwaukee, WI	WI	5	Maintenance	Primary		Incomplete		Incomplete
Rhineland (Oneida County), WI	WI	5	Maintenance	Primary/ Secondary	0.0078	Yes	0.0839	Yes
AQCR 240: Dane County: Madison sub-city area, WI	WI	5	Maintenance	Primary		Incomplete		Incomplete
Weirton, WV	WV	3	Maintenance	Primary/ Secondary	0.0118	Yes	0.0596	Yes
New Manchester-Grant Mag. Dis (Hancock), WV	WV	3	Maintenance	Primary	0.0098	Yes	0.0377	Yes

1. The level of the Annual National Ambient Air Quality Standard for sulfur dioxide is 0.03 parts per million (ppm) not to be exceeded for the year. The design value for the SO<sub>2</sub> NAAQS is the highest annual average of the most recent two years.
  
2. The level of the 24 Hour Average National Ambient Air Quality Standard for sulfur dioxide is 0.14 ppm not to be exceeded more than once per year. The design value for the SO<sub>2</sub> NAAQS is the highest second maximum 24 Hour average of the most recent two years. Design values were calculated using days and quarters that are at least 75% complete for the 24 Hour Average. Design values were calculated using sites that are at least 75% complete for the year for the annual standard. The 3 hour secondary standard has not been addressed at this time.
  
3. Data that have been flagged for exceptional events, for which documentation has been submitted and approved by the EPA (AQS concurrence field set to 'Y'), were excluded from the design value calculations. In several situations, submitted documentation is still under review and as such, revisions to design values are possible.

SOURCE: U.S. EPA's Air Quality System (AQS) as of July 9, 2009.