

## **SO<sub>2</sub> Air Quality Data Update 2009 Design Values**

The following is a brief summary of EPA's 2009 air quality update for sulfur dioxide (SO<sub>2</sub>).

During the 2009 calendar year:

- All of the original areas designated non-attainment for either the annual or the 24-hour average SO<sub>2</sub> NAAQS in 1990 that have complete monitoring met the SO<sub>2</sub> NAAQS in 2009 (Tables 1a and 1b).
- Three monitoring sites in the Hawaii Volcanoes National Park recorded violations of the annual and the 24-hour primary as well as the new 1-hour SO<sub>2</sub> NAAQS in 2009. 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 annual or 24-hour average SO<sub>2</sub> NAAQS.

During the three year period from 2007 - 2009:

- There were 59 counties not meeting the new daily maximum 1-hour average NAAQS.

As of June 2<sup>nd</sup>, 2010 EPA now has three primary National Ambient Air Quality Standards for SO<sub>2</sub>: (1) annual arithmetic mean concentration of 30 parts per billion (ppb), (2) a 24-hour average concentration of 140 ppb (not to be exceeded more than once per year) and (3) a 3-year average of the 99<sup>th</sup> percentile of the annual distribution of the daily maximum 1-hour average concentrations of 75 ppb.

Air quality data from EPA's Air Quality System (AQS) were used to calculate SO<sub>2</sub> design values. The specific calculations are explained in footnotes to the attached tables. The data used for these calculations were obtained from AQS on June 9, 2010. As of August 30, 2010, 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 1a. Areas Previously Designated Nonattainment for Sulfur Dioxide Annual NAAQS					
AQS Data Query:	5/6/2010	Last Updated:		7/7/2010	
Designated Area	States	EPA Regions	Designation Status <sup>1</sup>	2009 Annual Design Value (ppb) <sup>2,3</sup>	Met NAAQS
Ajo, AZ	AZ	9	Maintenance		Incomplete
Douglas, AZ	AZ	9	Maintenance		Incomplete
Hayden (Pinal County), AZ	AZ	9	Nonattainment	8	Yes
Miami (Gila County), AZ	AZ	9	Maintenance	5	Yes
Morenci, AZ	AZ	9	Maintenance		Incomplete
San Manuel (Pinal County), AZ	AZ	9	Maintenance		Incomplete
Piti Power Plant	GU	9	Nonattainment		
Tanguisson Power Plant	GU	9	Nonattainment		
Peoria County: Hollis twp	IL	5	Maintenance		no monitor
Peoria County: Peoria	IL	5	Maintenance	1	Yes
Tazewell County: Groveland twp	IL	5	Maintenance		no monitor
Lake County, IN	IN	5	Maintenance	3	Yes
La Porte Co, IN	IN	5	Maintenance	2	Yes
Marion County, IN	IN	5	Maintenance	2	Yes
Vigo Co, IN	IN	5	Maintenance	6	Yes
Wayne Co, IN	IN	5	Maintenance	3	Yes
Muscatine Co, IA	IA	7	Maintenance	3	Yes
Boyd County (part), KY	KY	4	Maintenance		no monitor
AQCR 109-Millinocket, ME	ME	1	Maintenance		Incomplete
Minneapolis-St Paul, MN	MN	5	Maintenance	2	Yes
Olmsted; City of Rochester	MN	5	Maintenance		Incomplete
East Helena Area, MT	MT	8	Nonattainment		Incomplete
Laurel Area, MT	MT	8	Nonattainment		Incomplete
NJ portion of the NE Penn-Upper Del Valley Interstate AQCR: (part)	NJ	2	Nonattainment		no monitor
Grant Co, NM (35017)	NM	6	Maintenance	1	Yes
Central Steptoe Valley, NV	NV	9	Maintenance		Incomplete
Coshocton County; Franklin Township, OH	OH	5	Maintenance		no monitor
Cuyahoga Co, OH	OH	5	Maintenance	6	
Steubenville & Mingo Junction, OH	OH	5	Maintenance	4	
Lake Co, OH	OH	5	Maintenance	4	

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Designated Area	States	EPA Regions	Designation Status <sup>1</sup>	2009 Annual Design Value (ppb) <sup>2,3</sup>	Met NAAQS
Lorain County (part), OH	OH	5	Maintenance		Incomplete
Lucas Co, OH (39095)	OH	5	Maintenance		Incomplete
Hazelwood, PA (42003)	PA	3	Maintenance		Incomplete
Armstrong County, PA	PA	3	Nonattainment		no monitor
Warren Co, PA	PA	3	Maintenance		Incomplete
Conewango Township (Warren Cour	PA	3	Maintenance	6	
Benton County; (part) TVA Johnsonville, TN	TN	4	Maintenance		Incomplete
Humphreys Co, TN	TN	4	Maintenance	1	
Polk County, TN	TN	4	Maintenance		Incomplete
Salt Lake Co, UT	UT	8	Nonattainment	4	
Tooele County (part)	UT	8	Nonattainment		Incomplete
AQCR 237: Brown County: Green Bay sub-city area, WI	WI	5	Maintenance		Incomplete
AQCR 238: Marathon County:, WI	WI	5	Maintenance		Incomplete
Milwaukee, WI	WI	5	Maintenance		Incomplete
Rhineland (Oneida County), WI	WI	5	Maintenance	4	
AQCR 240: Dane County: Madison sub-city area, WI	WI	5	Maintenance		Incomplete
Weirton, WV	WV	3	Maintenance	8	
New Manchester-Grant Mag. Dis (Ha	WV	3	Maintenance	7	
<b>Notes:</b>					
<b>1 Area designation as of 6/9/2010.</b>					
<b>2. The level of the annual NAAQS for sulfur dioxide is 30 parts per billion (ppb) not to be exceeded for the year.</b>					
<b>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 location agencies to EPA's Air Quality System (AQS) as of month, day, year. 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.</b>					

Table 1b. Areas Previously Designated Nonattainment for Sulfur Dioxide 24-Hour NAAQS					
AQS Data Query:	5/6/2010	Last Updated:		7/1/2010	
Designated Area	States	EPA Regions	Designation Status <sup>1</sup>	2009 24-Hour Design Value (ppb) <sup>2,3</sup>	Met NAAQS
Ajo, AZ	AZ	9	Maintenance		Incomplete
Douglas, AZ	AZ	9	Maintenance		Incomplete
Hayden (Pinal County), AZ	AZ	9	Nonattainment	35	Yes
Miami (Gila County), AZ	AZ	9	Maintenance	21	Yes
Morenci, AZ	AZ	9	Maintenance		Incomplete
San Manuel (Pinal County), AZ	AZ	9	Maintenance		Incomplete
Peoria County: Hollis twp	IL	5	Maintenance		no monitor
Peoria County: Peoria	IL	5	Maintenance	8	Yes
Tazewell County: Groveland twp	IL	5	Maintenance		no monitor
Lake County, IN	IN	5	Maintenance	16	Yes
La Porte Co, IN	IN	5	Maintenance	10	Yes
Marion County, IN	IN	5	Maintenance	11	Yes
Vigo Co, IN	IN	5	Maintenance	30	Yes
Wayne Co, IN	IN	5	Maintenance	26	Yes
Muscatine Co, IA	IA	7	Maintenance	38	Yes
Boyd County (part), KY	KY	4	Maintenance		no monitor
AQCR 109-Millinocket, ME	ME	1	Maintenance		Incomplete
Minneapolis-St Paul, MN	MN	5	Maintenance	25	Yes
Olmsted; City of Rochester	MN	5	Maintenance		Incomplete
East Helena Area, MT	MT	8	Nonattainment		Incomplete
Laurel Area, MT	MT	8	Nonattainment		Incomplete
NJ portion of the NE Penn-Upper Del Valley Interstate AQCR: (part)	NJ	2	Nonattainment		no monitor
Grant Co, NM (35017)	NM	6	Maintenance	1	Yes
Central Steptoe Valley, NV	NV	9	Maintenance		Incomplete
Coshocton County; Franklin Township, OH	OH	5	Maintenance		no monitor
Cuyahoga Co, OH	OH	5	Maintenance	19	
Steubenville & Mingo Junction, OH	OH	5	Maintenance	22	
Lake Co, OH	OH	5	Maintenance	13	
Lorain County (part), OH	OH	5	Maintenance		Incomplete
Lucas Co, OH (39095)	OH	5	Maintenance		Incomplete

Table 1b. Areas Previously Designated Nonattainment for Sulfur Dioxide 24-Hour NAAQS					
AQS Data Query:	5/6/2010	Last Updated:		7/1/2010	
Designated Area	States	EPA Regions	Designation Status <sup>1</sup>	2009 24-Hour Design Value (ppb) <sup>2,3</sup>	Met NAAQS
Hazelwood, PA (42003)	PA	3	Maintenance		Incomplete
Armstrong County, PA	PA	3	Nonattainment		no monitor
Warren Co, PA	PA	3	Maintenance		Incomplete
Conewango Township (Warren County)	PA	3	Maintenance	32	
Benton County; (part) TVA					
Johnsonville, TN	TN	4	Maintenance		Incomplete
Humphreys Co, TN	TN	4	Maintenance		Incomplete
Polk County, TN	TN	4	Maintenance		Incomplete
Salt Lake Co, UT	UT	8	Nonattainment	10	
Tooele County (part)	UT	8	Nonattainment		Incomplete
AQCR 237: Brown County: Green Bay sub-city area, WI	WI	5	Maintenance		Incomplete
AQCR 238: Marathon County:, WI	WI	5	Maintenance		Incomplete
Milwaukee, WI	WI	5	Maintenance		Incomplete
Rhineland (Oneida County), WI	WI	5	Maintenance	50	
AQCR 240: Dane County: Madison sub-city area, WI	WI	5	Maintenance		Incomplete
Weirton, WV	WV	3	Maintenance	40	
New Manchester-Grant Mag. Dis (Hancock Co), WV	WV	3	Maintenance	31	
<b>Notes:</b>					
<b>1 Area designation as of 6/9/2010.</b>					
<b>2. The level of the 24-hour NAAQS for sulfur dioxide is 140 parts per billion (ppb) not to be exceeded more than once per year.</b>					
<b>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 location agencies to EPA's Air Quality System (AQS) as of month, day, year. 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.</b>					