

# National Ambient Air Quality Standards Review



**June 30, 2010**

# Schedule

NAAQS	Final NAAQS Revision	Designations			SIPs due *	Attainment Date
		State Recommendations	120-Day Letters	Final Designations		
24- Hour PM <sub>2.5</sub>	12/06	12/07	8/08	12/09	12/12	12/14
PM <sub>2.5</sub>	10/11	10/12	6/13	10/13	10/16	10/18
Lead	10/08	10/09	6/10 and 6/11	10/10 and 10/11	06/12 and 06/13	3/15 and 3/16
NO <sub>2</sub> - Primary	1/10	1/11 or 2015	9/11 or 2016-17	1/12 or 2016-17	09/13 or 2018/19	3/17 or 2021/22
SO <sub>2</sub> - Primary	6/10	6/11	2/12	6/12	2/14	10/17
Ozone - Primary	8/10	1/11	3/11	8/11	12/13	8/14-8/31
Ozone - Secondary	8/10	1/11 or 8/11	3/11 or 4/12	8/11 or 8/12	12/13 or 8/15	undecided
NO <sub>2</sub> - Secondary	3/12	3/13	11/13	3/14	12/15	3/19
SO <sub>2</sub> - Secondary	3/12	3/13	11/13	3/14	12/15	3/19
CO	5/11	5/12	1/13	5/13	7/15	5/18

\* Final designations become effective 60 days after publication, SIPs are due either 18 months (lead, SO<sub>2</sub> and NO<sub>2</sub>), no later than 2 years (CO), or 3 years (ozone and PM<sub>2.5</sub>) after.

# National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m <sup>3</sup> )	8-hour <sup>(1)</sup>	None	
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>(1)</sup>		
Lead	0.15 µg/m <sup>3</sup> <sup>(2)</sup>	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary	
Nitrogen Dioxide	53 ppb <sup>(3)</sup>	Annual (Arithmetic Average)	Same as Primary	
	100 ppb	1-hour <sup>(4)</sup>	None	
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup>	24-hour <sup>(5)</sup>	Same as Primary	
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg/m <sup>3</sup>	Annual <sup>(6)</sup> (Arithmetic Average)	Same as Primary	
	35 µg/m <sup>3</sup>	24-hour <sup>(7)</sup>	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour <sup>(8)</sup>	Same as Primary	
	0.08 ppm (1997 std)	8-hour <sup>(9)</sup>	Same as Primary	
	0.12 ppm	1-hour <sup>(10)</sup>	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual <sup>(12)</sup> (Arithmetic Average)	0.5 ppm	3-hour <sup>(1)</sup>
	0.14 ppm	24-hour <sup>(1)(12)</sup>		
	75 ppb <sup>(11)</sup>	1-hour	None	

# National Ambient Air Quality Standards

- (1) Not to be exceeded more than once per year.
- (2) Final rule signed October 15, 2008.
- (3) The official level of the annual NO<sub>2</sub> standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.
- (4) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).
- (5) Not to be exceeded more than once per year on average over 3 years.
- (6) To attain this standard, the 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.
- (7) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).
- (8) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)
- (9) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.  
(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.  
(c) EPA is in the process of reconsidering these standards (set in March 2008).
- (10) (a) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").  
(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is  $\leq 1$ .
- (11) (a) Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.
- (12) EPA is revoking the two existing primary standards of 140 ppb evaluated over 24-hours and 30 ppb evaluated over an entire year because they will not add additional public health protection given a 1-hour standard at 75 ppb.

# Ozone

- In January 2010, EPA proposed to strengthen the 8-hour primary ozone standard to a level within the range of 60-70 parts per billion (ppb).
- EPA also proposed to establish a distinct cumulative, seasonal secondary standard within the range of 7-15 ppm-hours.
- EPA has committed to an accelerated schedule for implementing the revised ozone standards resulting from this reconsideration.
- EPA will complete the designations process by August 2011, instead of taking the full two years from promulgation of the standards, as the Clean Air Act allows.
- Under the proposed accelerated schedule, nonattainment area SIP revisions will be due by December 2013, only 28 months after the designations.
- Because EPA is proposing a secondary standard that is not identical to the primary standard, EPA may be required to designate different nonattainment areas for the primary and secondary standards.

# Particulate Matter

- In December 2009, EPA designated 9 areas in Region 3 as nonattainment for the 2006 24-hour PM<sub>2.5</sub> NAAQS.
- The 2006 24-hour PM<sub>2.5</sub> NAAQS SIPs will be due December 2012 with an attainment date of December 2014.
- There are 16 areas in Region 3 designated as nonattainment for the 1997 annual PM<sub>2.5</sub> NAAQS of which 15 of those areas the 2009 data shows that they have met the 2010 attainment date.
- Proposed revised PM<sub>2.5</sub> NAAQS are expected by February 2011.

# Lead

- For areas where EPA has sufficient ambient air quality monitoring data from existing monitoring network, EPA will complete designations by October 2010, but only for nonattainment areas.
- By no later than June 17, 2010, EPA will send the 120 Day Letter to the Governors, for the October 2010 designations.
- EPA will complete final designations for all attainment, nonattainment, and unclassifiable areas by October 15, 2011.

# Nitrogen Dioxide

- EPA will designate areas as attaining or not attaining the new primary standard by January 2012, based on the existing community-wide monitoring network.
- EPA will designate all other areas of the country “unclassifiable” to reflect the fact that there is insufficient data available to determine if those areas are meeting the revised NAAQS.
- Once the expanded network of NO<sub>2</sub> monitors is fully deployed and three years of air quality data have been collected, EPA plans to redesignate areas in 2017 or 2018 or wait on the results of the 2015 NAAQS review.
- EPA is considering the need for changes to the secondary NO<sub>2</sub> standard under a separate review, final standard revision is expected by March 2012.



# Sulfur Dioxide

- EPA intends to complete designations within two years of promulgation of the revised SO<sub>2</sub> standard (June 2012.)
- EPA anticipates initially designating areas based on 2008-2010 monitoring data, or refined dispersion modeling results if provided by the state. Areas which violate the standard would be designated as “nonattainment.” Areas that have both monitoring data and appropriate refined modeling results showing no violations would be designated as “attainment.” All other areas would be designated as “unclassifiable.”
- States with areas designated nonattainment in 2012 would need to submit state implementation plans (SIPs) to EPA by early 2014 outlining actions that will be taken to meet the standards as expeditiously as possible, but no later than August 2017.

# Carbon Monoxide

- Final CO standard revision is expected by May 2011.