

Iowa Exceedances of the National Ambient Air Quality Standards (NAAQS), 2007



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What Are the NAAQS?

The Clean Air Act requires EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards.

Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly.

Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The table and key on the following page lists the NAAQS for the six criteria pollutants.

National Ambient Air Quality Standards

Pollutant	Averaging Period	Exceedance Level	Units
Ozone	8hr (1)	85	ppb
PM 2.5	24hr (2)	35.5	micrograms per cubic meter
	annual (3)	15.05	micrograms per cubic meter
PM10	24hr (4)	155	micrograms per cubic meter
Sulfur dioxide	3hr (5)	0.55	ppm
	24hr (5)	0.145	ppm
	annual	0.0305	ppm
Carbon monoxide	1hr (5)	35.5	ppm
	8hr (5)	9.5	ppm
Nitrogen dioxide	annual	0.0535	ppm
Lead	quarterly	1.55	micrograms per cubic meter

(1) 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 85 ppb.

(2) 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 35.5 µg/m³ (effective December 17, 2006).

(3) To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.05 µg/m³.

(4) Not to be exceeded more than once per year on average over 3 years.

(5) Not to be exceeded more than once per year.

Fine Particulate Regulation Change

The EPA promulgated new lower standards for fine particulate (PM_{2.5}) that became effective on December 18, 2006.

The “old” national ambient air quality standard for PM_{2.5} was 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as a 24-hour average. The new standard is 35 $\mu\text{g}/\text{m}^3$.

The new NAAQS is a primary standard, and represents EPA's best estimate of the threshold for adverse health effects.

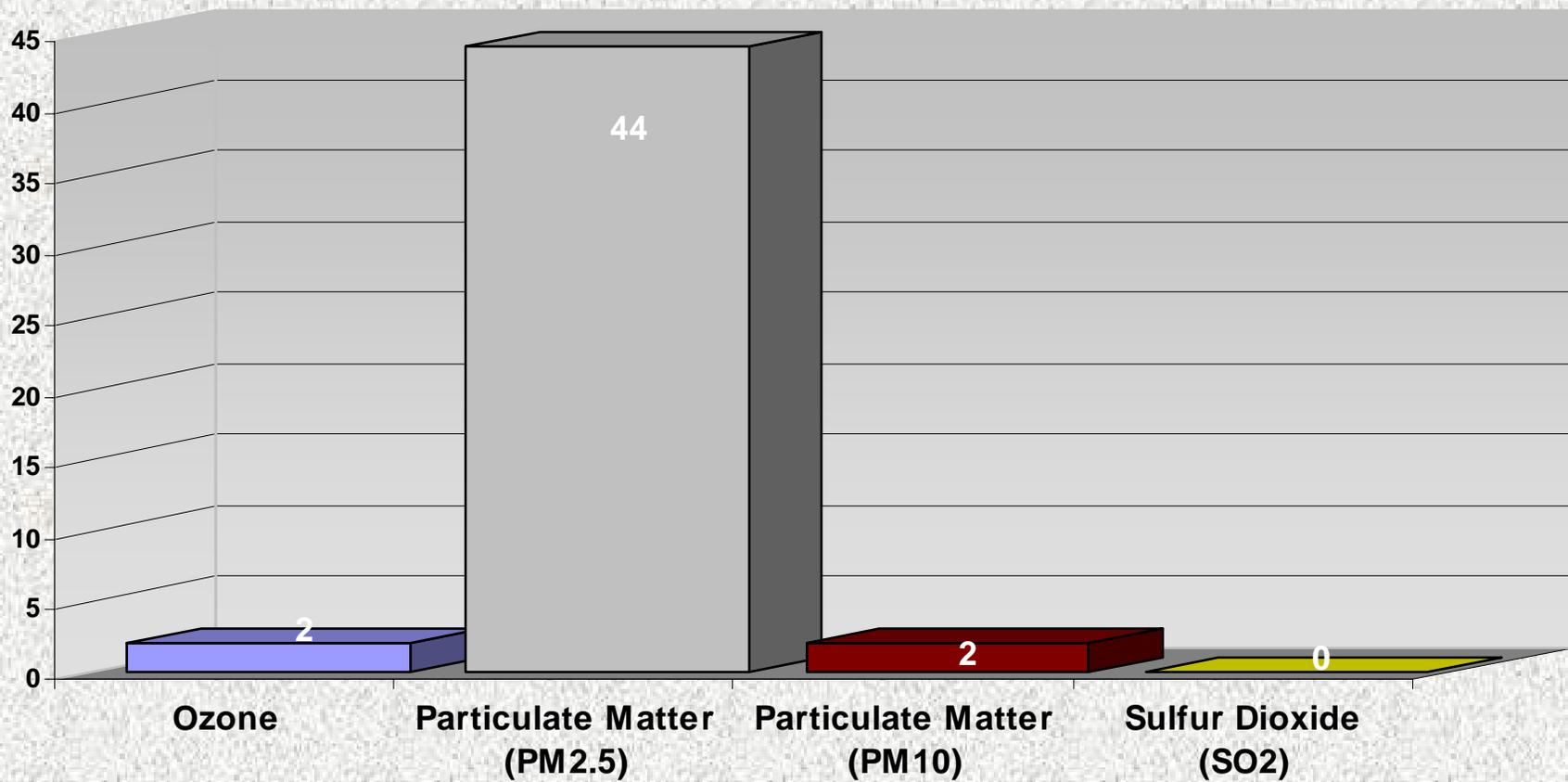
Data Used for this Report

Particulate data in this report is from filter based samplers where the data is collected over a 24-hour period and then analyzed in a laboratory. Filter samplers are normally operated on a schedule of one sample every third day (1 in 3). In areas of high population or high concentration, the samplers may be operated on an accelerated schedule (1 in 2 or daily).

Iowa NAAQS Exceedances, 2007

Date	PM2.5	PM10	Ozone
2/15/07		1	
2/23/07	1		
2/24/07	1		
2/28/07	1		
3/7/07	2		
3/9/07	5		
5/3/07	1		
5/4/07	1		
5/5/07	1		
5/23/07	1		
5/30/07	1		
6/13/07			1
6/15/07			1
6/16/07	1		
7/25/07	1		
7/26/07	1		
9/21/07	1		
11/5/07		1	
11/19/07	1		
11/20/07	3		
12/17/07	4		
12/19/07	4		
12/20/07	13		
TOTAL	44	2	2

Iowa NAAQS Exceedances, 2007



2007 NAAQS Exceedances							
Monitor Type	Sampling Frequency	Site Location	Site Name	Exceedance Date	Concentration	Units	AQI*
PM10	1 in 2	Mason City	Washington School	2/15/07	157	ug/m3	102
PM2.5	Daily	Muscatine	Garfield Elementary	2/23/07	44	ug/m3	108
PM2.5	Daily	Muscatine	Garfield Elementary	2/24/07	53.2	ug/m3	126
PM2.5	Daily	Muscatine	Garfield Elementary	2/28/07	54.7	ug/m3	129
PM2.5	1 in 3	Council Bluffs	Franklin Elementary	3/7/07	37.7	ug/m3	95
PM2.5	1 in 3	Sioux City	Lowell Elementary	3/7/07	36.7	ug/m3	93
PM2.5	Daily	Davenport	Black Hawk Foundry	3/9/07	44.2	ug/m3	108
PM2.5	Daily	Central Davenport	Jefferson Elementary	3/9/07	42.1	ug/m3	104
PM2.5	Daily	Clinton	Rainbow Park	3/9/07	37.3	ug/m3	94
PM2.5	Daily	Iowa City	Hoover Elementary	3/9/07	41.9	ug/m3	104
PM2.5	Daily	Muscatine	Garfield Elementary	3/9/07	41.5	µg/m3	103
PM2.5	Daily	Muscatine	Garfield Elementary	5/3/07	42.2	µg/m3	104
PM2.5	Daily	Muscatine	Garfield Elementary	5/4/07	61	µg/m3	141
PM2.5	Daily	Muscatine	Garfield Elementary	5/5/07	63.2	µg/m3	146
PM2.5	1 in 3	Clinton	Chancy Park	5/23/07	37	ug/m3	93

* EPA is currently revising the Air Quality Index for Fine Particulate

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2007 NAAQS Exceedances Continued

Monitor Type	Sampling Frequency	Site Location	Site Name	Exceedance Date	Concentration	Units	AQI*
PM2.5	1 in 3	Clinton	Chancy Park	5/30/07	36.6	ug/m3	93
Ozone	Continuous	Waverly	Waverly Airport	6/13/07	86	ppb	104
Ozone	Continuous	Pisgah	Highway Shed	6/15/07	85	ppb	101
PM2.5	Daily	Davenport	Black Hawk Foundry	6/16/07	35.6	ug/m3	91
PM2.5	Daily	Iowa City	Hoover Elementary	7/25/07	35.7	ug/m3	91
PM2.5	Daily	Davenport	Black Hawk Foundry	7/26/07	36	ug/m3	91
PM2.5	Daily	Davenport	Black Hawk Foundry	9/21/07	37.4	ug/m3	94
PM10	Daily	Mason City	17th and Washington	11/5/07	162	ug/m3	104
PM2.5	Daily	Davenport	Black Hawk Foundry	11/19/07	39.1	ug/m3	97
PM2.5	Daily	Davenport	Black Hawk Foundry	11/20/07	38.3	ug/m3	96
PM2.5	Daily	Central Davenport	Jefferson Elementary	11/20/07	35.8	ug/m3	91
PM2.5	Daily	Iowa City	Hoover Elementary	11/20/07	36.9	ug/m3	93
PM2.5	1 in 3	Clinton	Chancy Park	12/17/07	35.6	ug/m3	91
PM2.5	Daily	Davenport	Black Hawk Foundry	12/17/07	38.2	ug/m3	96
PM2.5	1 in 3	Clarion	Clarion-CAFO	12/17/07	36.4	ug/m3	92
PM2.5	1 in 3	Waterloo	Grout Museum	12/17/07	37.5	ug/m3	94

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2007 NAAQS Exceedances Continued

Monitor Type	Sampling Frequency	Site Location	Site Name	Exceedance Date	Concentration	Units	AQI*
PM2.5	Daily	Iowa City	Hoover Elementary	12/19/07	54.8	ug/m3	129
PM2.5	Daily	Muscatine	Garfield Elementary	12/19/07	54.9	ug/m3	129
PM2.5	Daily	Davenport	Black Hawk Foundry	12/19/07	56.8	ug/m3	133
PM2.5	Daily	Central Davenport	Jefferson Elementary	12/19/07	57.2	ug/m3	134
PM2.5	1 in 3	Sioux City	Lowell Elementary	12/20/07	45.7	ug/m3	111
PM2.5	1 in 3	Emmetsburg	Iowa Lakes College	12/20/07	38.4	ug/m3	96
PM2.5	1 in 3	Backbone State Park	Backbone State Park	12/20/07	51.5	ug/m3	123
PM2.5	1 in 3	Cedar Rapids	Army Reserve	12/20/07	53.4	ug/m3	126
PM2.5	1 in 3	Waterloo	Grout Museum	12/20/07	63	ug/m3	145
PM2.5	Daily	Iowa City	Hoover Elementary	12/20/07	47.4	ug/m3	115
PM2.5	Daily	Muscatine	Garfield Elementary	12/20/07	47.6	ug/m3	115
PM2.5	Daily	Davenport	Black Hawk Foundry	12/20/07	47.5	ug/m3	115
PM2.5	Daily	Central Davenport	Jefferson Elementary	12/20/07	45.3	ug/m3	110
PM2.5	1 in 3	Central Davenport	Adams Elementary	12/20/07	46	ug/m3	112
PM2.5	1 in 3	Clinton	Chancy Park	12/20/07	44.3	ug/m3	108
PM2.5	1 in 3	Clarion	Clarion-CAFO	12/20/07	48	ug/m3	116
PM2.5	1 in 3	Council Bluffs	Franklin Elementary	12/20/07	49.1	ug/m3	118

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Web Resources

Real-time Air Monitoring Data:

In Polk County:

<http://www.airquality.co.polk.ia.us/>

In Linn County:

<http://www.air.linn.ia.us/>

Outside Polk and Linn Counties:

<http://www.uhl.uiowa.edu/services/ambient/realtime.xml>

National Ozone and Particulate Maps:

<http://airnow.gov/>

Historical Air Monitoring Data for Iowa and Other States:

<http://www.epa.gov/air/data/>