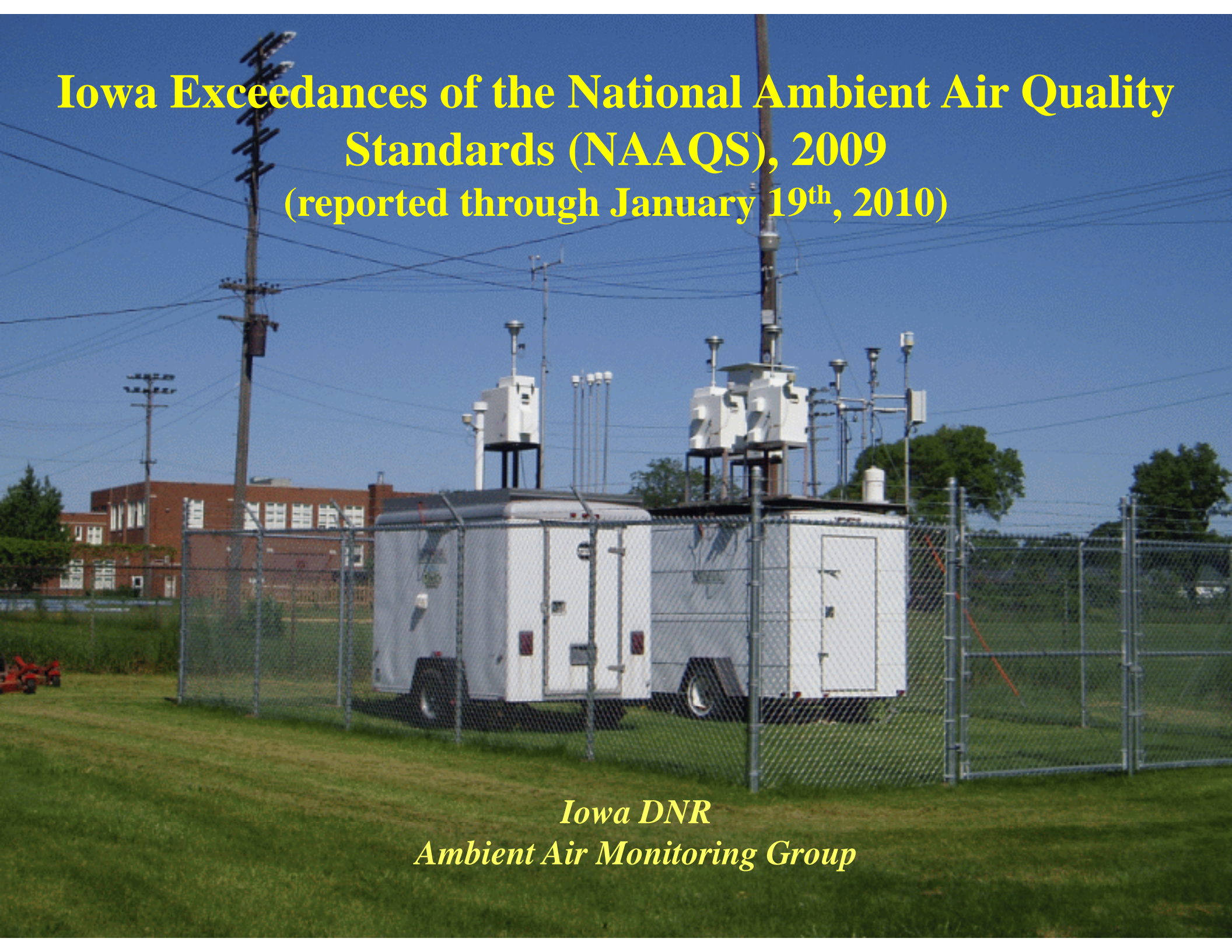


# Iowa Exceedances of the National Ambient Air Quality Standards (NAAQS), 2009 (reported through January 19<sup>th</sup>, 2010)



*Iowa DNR  
Ambient Air Monitoring Group*



## 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)	76	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 75 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 35.4 µg/m<sup>3</sup> (effective December 17, 2006).

(3) 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 15.05 µg/m<sup>3</sup>.

(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.

See 40CFR Part 50 for details on attainment calculations

## Ozone Regulation Change

The EPA promulgated new lower standards for ozone that became effective in May of 2008.

The “old” national ambient air quality standard for ozone was 0.080 parts per million (0.084 rounds down). The form of the standard was a three year average of a sites fourth highest annual daily maximum 8-hour average. The new standard is 0.075 parts per million (75 parts per billion) and the form of the standard has not changed with the exception of rounding conventions (0.076 shows non-attainment with the standard).

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).

Ozone is a summertime pollutant and data is collected seasonally from April 1 through October 31. Ozone monitors are continuous instruments that report hourly averages for each hour of each day of the ozone season.

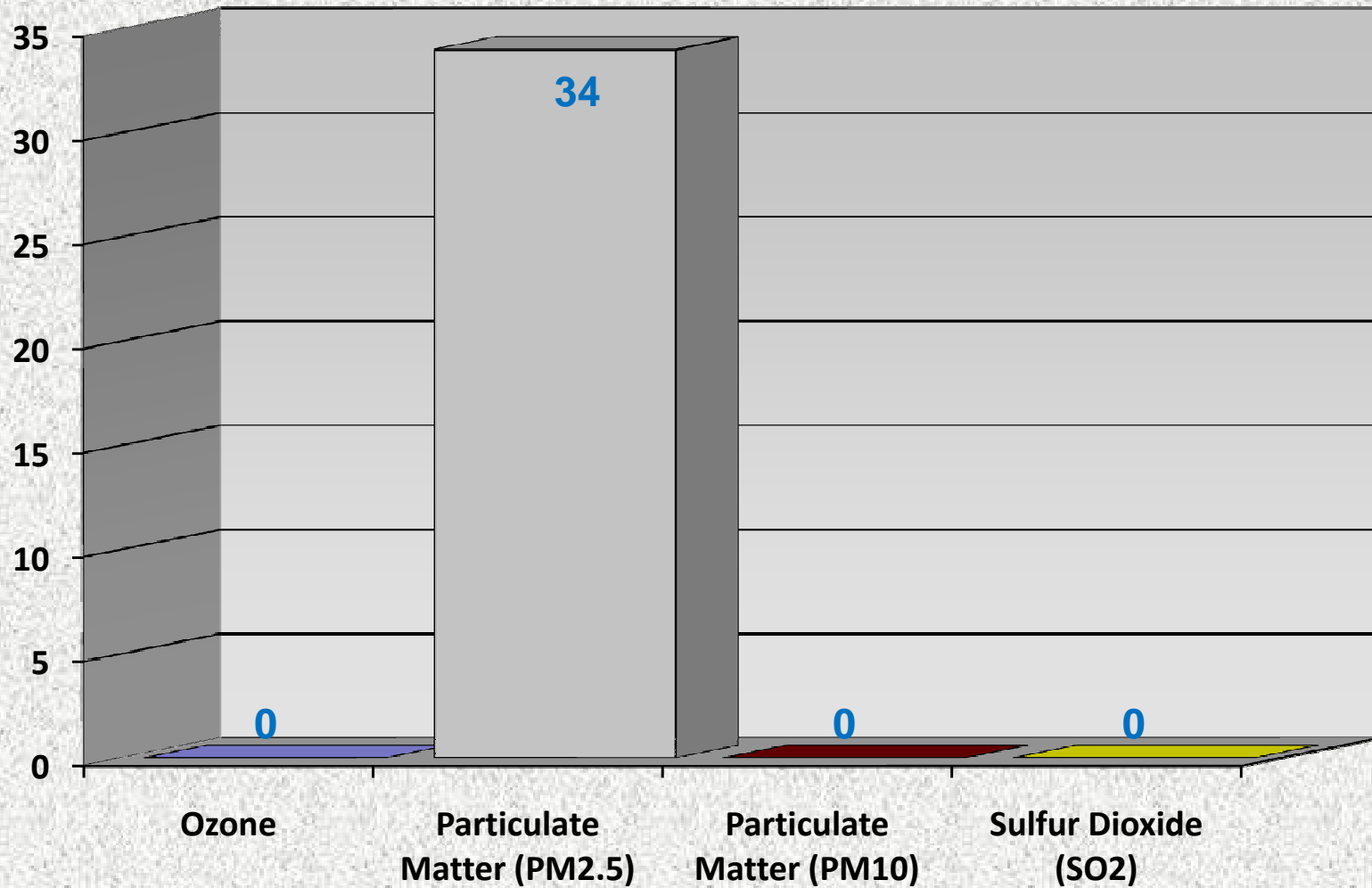
# Iowa NAAQS Exceedances, 2009

(reported through January 19<sup>th</sup>, 2010)

Date	PM2.5	PM10	Ozone
1/3/09	1		
1/22/09	7		
2/26/09	1		
4/4/09	1		
11/23/09	7		
12/17/09	1		
12/18/09	10		
12/21/09	4		
12/22/09	1		
12/24/09	1		
<b>TOTAL</b>	<b>34</b>	<b>0</b>	<b>0</b>

# Iowa NAAQS Exceedances, 2009

(reported through January 19<sup>th</sup>, 2010)





## 2009 NAAQS Exceedances (reported through January 19, 2010)

Monitor Type	Site Location	Site Name	Exceedance Date	Concentration	Units	AQI*
PM2.5	Muscatine	Garfield Elementary	1/3/09	54.0	µg/m3	128
PM2.5	Clinton	Chancy Park	1/22/09	40.7	µg/m3	101
PM2.5	Clinton	Rainbow Park	1/22/09	40.3	µg/m3	100
PM2.5	Cedar Rapids	Linn Public Health	1/22/09	35.8	µg/m3	91
PM2.5	Cedar Rapids	Army Reserve	1/22/09	40.2	µg/m3	100
PM2.5	Clarion	Clarion-CAFO	1/22/09	39.2	µg/m3	98
PM2.5	Waterloo	Grout Museum	1/22/09	43.4	µg/m3	107
PM2.5	Waterloo	Water Tower	1/22/09	38.0	µg/m3	95
PM2.5	Muscatine	Garfield Elementary	2/26/09	35.7	µg/m3	91
PM2.5	Muscatine	Garfield Elementary	4/4/09	37.3	µg/m3	94
PM2.5	Davenport	Blackhawk Foundry	11/23/09	40.1	µg/m3	99
PM2.5	Central Davenport	Jefferson Elementary	11/23/09	38.4	µg/m3	96
PM2.5	Clinton	Chancy Park	11/23/09	45.5	µg/m3	111
PM2.5	Muscatine	Garfield Elementary	11/23/09	52.5	µg/m3	125
PM2.5	Iowa City	Hoover Elementary	11/23/09	36.0	µg/m3	91
PM2.5	Clinton	Rainbow Park	11/23/09	46.5	µg/m3	113
PM2.5	Cedar Rapids	Linn Public Health	11/23/09	35.5	µg/m3	90

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



## 2009 NAAQS Exceedances (through January 19, 2010), Continued

Monitor Type	Site Location	Site Name	Exceedance Date	Concentration	Units	AQI*
PM2.5	Cedar Rapids	Linn Public Health	12/17/09	37.3	µg/m3	94
PM2.5	Des Moines	Health Department	12/18/09	41.3	µg/m3	103
PM2.5	Emmetsburg	Iowa Lakes College	12/18/09	49.2	µg/m3	118
PM2.5	Council Bluffs	Franklin Elementary	12/18/09	47.0	µg/m3	114
PM2.5	Sioux City	Bryant Elementary	12/18/09	40.2	µg/m3	100
PM2.5	Clive	Indian Hills	12/18/09	41.5	µg/m3	103
PM2.5	Waterloo	Water Tower	12/18/09	37.9	µg/m3	95
PM2.5	Waterloo	Grout Museum	12/18/09	36.3	µg/m3	92
PM2.5	Cedar Rapids	Linn Public Health	12/18/09	35.7	µg/m3	91
PM2.5	Clarion	Clarion-CAFO	12/18/09	42.4	µg/m3	105
PM2.5	Montgomery County	Viking Lake State Park	12/18/09	48.4	µg/m3	117
PM2.5	Central Davenport	Jefferson Elementary	12/21/09	37.5	µg/m3	94
PM2.5	Central Davenport	Adams Elementary	12/21/09	39.1	µg/m3	97
PM2.5	Davenport	Blackhawk Foundry	12/21/09	37.8	µg/m3	95
PM2.5	Clinton	Rainbow Park	12/21/09	36.2	µg/m3	92
PM2.5	Muscatine	Garfield Elementary	12/22/09	74.4	µg/m3	156
PM2.5	Muscatine	Garfield Elementary	12/24/09	39.6	µg/m3	98

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

# Web Resources

## **Real-time Air Monitoring Data:**

### *In Polk County:*

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

### *In Linn County:*

<http://www.linncleanair.org/>

### *Outside Polk and Linn Counties:*

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

### *Attainment Calculations:*

<http://epa.gov/airtrends/values.html>

### *National Ozone and Particulate Maps:*

<http://airnow.gov/>

### *Historical Air Monitoring Data for Iowa and Other States:*

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