



# Arizona State Senate **Issue Brief**

January 8, 2008

## Note to Reader:

The Senate Research Staff provides nonpartisan, objective legislative research, policy analysis and related assistance to the members of the Arizona State Senate. The *Research Briefs* series, which includes the *Issue Brief*, *Background Brief* and *Issue Paper*, is intended to introduce a reader to various legislatively related issues and provide useful resources to assist the reader in learning more on a given topic. Because of frequent legislative and executive activity, topics may undergo frequent changes. Additionally, nothing in the *Brief* should be used to draw conclusions on the legality of an issue.

## **THE CLEAN AIR ACT**

### **INTRODUCTION**

The Clean Air Act (CAA), originally signed into law in 1963, was substantially amended in 1970 and again in 1990. The CAA established the U.S. Environmental Protection Agency (EPA) to regulate air quality. The EPA establishes levels of National Ambient Air Quality Standards (NAAQS) for certain pollutants including carbon monoxide, nitrogen oxides, lead, sulfur dioxides, ozone and particulates. The NAAQS prescribe two levels of standards for maximum amounts of pollutants in the air, the primary standard to protect human health and the secondary standard to prevent damage to the environment and property. The EPA is required to review those standards every five years. (*See the table on page 4 for a list of NAAQS.*)

Most major U.S. metropolitan areas have been or are currently designated as nonattainment areas for one or more of the NAAQS, which means that the pollution levels exceed the amounts allowed by the EPA primary standards. The 1970 amendments began the process to phase out ozone depleting chemicals and required states to create a State Implementation Plan (SIP), which must be submitted to the EPA for approval. The 1990 Clean Air Act Amendments address three major threats to the environment and human health including, acid rain, urban air pollution and toxic air emissions.

The CAA also addresses hazardous air pollutants (HAPs), which are released by chemical facilities including dry cleaners, printing plants and motor vehicles. Also, the CAA includes measures aimed at reducing emissions from mobile sources by requiring cleaner fuel formulations, manufacturing cleaner running vehicles, requiring vehicle inspection and maintenance programs and regulations of off highway vehicles.

The CAA outlines the role that federal and state governments play in enforcement of air quality regulations. The EPA regulates air quality by region and there are ten regions throughout the United States. Each EPA Regional Office is responsible for the execution of EPA programs within its states.

### ***Arizona and The Clean Air Act***

Arizona is in Region 9, with California, Nevada, Hawaii and several U.S. territorial islands. Indian lands are regulated independently of the state of Arizona. The Governor of Arizona has designated local councils of governments as the principal planning agencies for air quality issues. These agencies submit information to the EPA for approval and coordinate local entities to monitor and enforce air quality requirements.

In the Phoenix metropolitan area the agency responsible for air quality issues is the Maricopa Association of Governments otherwise known as MAG and the Pima Association of Governments, or PAG, oversees air quality issues in the Tucson metropolitan area that.

### ***STATE IMPLEMENTATION PLANS***

There are different levels of nonattainment, (e.g. severe, serious, moderate, etc.) based on the extent to which the NAAQS standards are exceeded. A SIP establishes measures that will be used to reduce emissions and attain acceptable air quality standards. A separate SIP must be approved for each area designated as a nonattainment area. After the EPA approves a SIP, it becomes federally enforceable, and proposed revisions must be approved by the EPA. Monitors located throughout the nonattainment area measure pollution levels and, based on the monitor readings, the EPA can determine if the measures are reducing pollution in the area.

If a nonattainment area comes into compliance with EPA primary standards, it is designated as a maintenance area at which point, the EPA must approve a maintenance plan, which provides for ongoing efforts to maintain compliance with air quality standards.

### ***Arizona's SIP***

Since the mid 1970's, various parts of Arizona have been declared nonattainment areas by the EPA. These areas have not met EPA primary standards for air pollutants such as particulate matter, sulfur dioxide and carbon monoxide. Currently, the Maricopa PM-10

Nonattainment Area, which includes the Phoenix Metropolitan Area, is designated as "serious" as a result of exceedences of the limits for particulate matter with a diameter less than or equal to 10 micrometers (PM-10).

The Arizona Department of Environmental Quality (ADEQ) and local air quality planning organizations, MAG and PAG, share the responsibility of completing SIP requirements. The SIPs that have been approved for Arizona's nonattainment areas include a variety of air quality improvement measures, including vehicle emissions inspections requirements, voluntary vehicle retrofit and retirement, carpooling and public transportation improvements, street sweepers, cleaner burning fuels, agricultural best management practices, regulating emissions from industrial and commercial facilities, and dust abatement measures.

### ***CLEAN AIR ACT SANCTIONS***

After a state submits a SIP, the EPA reviews the plan and makes a finding. If the EPA makes a finding of failure or disapproval of a SIP the state has 18 months to correct the deficiency. The CAA outlines the possible deficiencies that the EPA may find, which range from failure to submit a plan to failure to implement any requirement of an approved SIP. If the state fails to correct the deficiency within the allotted amount of time the EPA is required to impose an Offset Sanction, which means that the ratio of emissions reductions to emissions increases for permitted sources must be 2 to 1, meaning that new or expanded sources will only be permitted if sufficient reductions are made. If the SIP is still not corrected 24 months after the finding, the EPA must impose highway sanctions, meaning a reduction or elimination in federal transportation funding for the state.

In addition to sanctions for deficiencies in a SIP, the EPA may also take action if a state fails to attain NAAQS standards. For an area designated as a serious nonattainment area, Arizona must submit a revised plan that includes measures to reduce emissions by 5 percent per year until attainment is met.

## *Arizona Nonattainment Areas*

Currently, the Phoenix-Mesa 8-hour Ozone Nonattainment Area is designated as being in maintenance.

The Maricopa PM-10 Nonattainment Area is designated as a serious nonattainment area for PM-10, based on exceedences recorded at the monitoring stations, which resulted in failure to attain within the allotted time period. As a result, Arizona must submit a 5 Percent Plan to the EPA, by December 31, 2007, with additional measures to reduce emissions by 4,618 tons per year (tpy) in 2008, 2009 and 2010 or until there are no recorded exceedences in the nonattainment area for three consecutive years. MAG is the entity responsible for coordinating and submitting the 5 Percent Plan.

## **RECENT ARIZONA LEGISLATIVE ACTION**

In response to the EPA requirement to reduce emissions by 5 percent each year in Area A and the PM-10 nonattainment area, MAG ran computer models for approximately 40 measures intended to reduce PM-10 emissions. In 2007, legislation was signed into law that implemented several of those measures. The legislation included leaf blower restrictions, road paving and stabilization requirements, restrictions on the use of off-highway vehicles, dust control requirements on construction sites including having a dust control coordinator in some instances, no-burn restrictions for outdoor fires, and other miscellaneous requirements. Not all of the MAG suggested measures required statutory changes. In addition to legislative measures, cities, towns, counties and other entities made commitments to locally implement other changes in order to meet the 5 percent reduction goal.

## **ADDITIONAL RESOURCES**

- Environmental Protection Agency  
U.S. EPA Region 9  
75 Hawthorne Street  
San Francisco, CA, 94105  
<http://www.epa.gov/>
- Arizona Department of Environmental Quality  
Phoenix Main Office  
1110 W. Washington St.  
Phoenix, AZ 85007  
<http://www.azdeq.gov/>
- Maricopa Association of Governments  
302 North 1st Avenue  
Suite 300  
Phoenix, Arizona 85003  
<http://www.mag.maricopa.gov>
- Pima Association of Governments  
177 N. Church Avenue, Suite 405  
Tucson, Arizona 85701  
<http://www.pagnet.org>
- Air Quality Program, Arizona Revised Statutes, Laws 2007, Chapter 292
- Clean Air Act Amendments of 1990, P.L.101-594

National Ambient Air Quality Standards (NAAQS)			
Pollutant	Primary Stds.	Averaging Times	Secondary Stds.
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>	None
Lead	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary
Particulate Matter (PM <sub>10</sub> )	Revoked <sup>(2)</sup>	Annual <sup>(2)</sup> (Arith. Mean)	Revoked <sup>(2)</sup>
	150 µg/m <sup>3</sup>	24-hour <sup>(3)</sup>	Same as Primary
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg/m <sup>3</sup>	Annual <sup>(4)</sup> (Arith. Mean)	Same as Primary
	35 µg/m <sup>3</sup>	24-hour <sup>(5)</sup>	Same as Primary
Ozone	0.08 ppm	8-hour <sup>(6)</sup>	Same as Primary
	0.12 ppm	1-hour <sup>(7)</sup> (Applies only in limited areas)	Same as Primary
Sulfur Oxides	0.03 ppm	Annual (Arith. Mean)	-----
	0.14 ppm	24-hour <sup>(1)</sup>	-----
	-----	3-hour <sup>(1)</sup>	0.5 ppm (1300 µg/m <sup>3</sup> )

From EPA website <http://www.epa.gov/air/criteria.html>