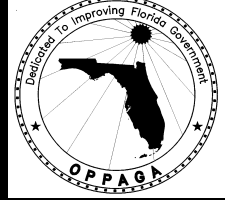




Office of Program Policy Analysis And Government Accountability



John W. Turcotte, Director

January 9, 1997

Review of Florida's Outdoor Air Quality Programs

Report Abstract

- **Current state activity has decreased outdoor air pollution and significantly reduced public health risks.**
- **Most pollutants show a downward trend in ambient air exceedances and in emission tons per day and an increasing percentage of the population is living in areas with clean air.**
- **These trends, however, may not continue given the potential threats posed by population growth.**

Purpose of Review

The Joint Legislative Auditing Committee requested that our Office review Florida's management of risks associated with outdoor air quality Programs. Specifically, we addressed the following questions:

- Is the state effectively controlling the risks associated with outdoor air quality?
- Are additional laws or regulations needed?

For our assessment of Florida's Indoor Air Quality Programs see Report No. 96-32.

Background

Excessive exposure to air pollutants such as carbon monoxide, lead, and ozone poses risks to human health and can cause such health problems as respiratory irritation and bronchial attacks.¹ Many of Florida's elderly and those with respiratory problems are especially sensitive to ambient air pollutants.

Florida's Air Resource Management Program, within the Department of Environmental Protection (DEP), is primarily driven by the requirements of the Federal Clean Air Act. The Program dedicates most of its resources to implementing the Clean Air Act. As required by the Clean Air Act, Florida's Outdoor Air Quality Programs have permitting, compliance and enforcement provisions.

The Division of Air Resources Management is divided into two bureaus. The Bureau of Air Regulation is responsible for permitting and monitoring stationary sources of air pollution such as power plants, incinerators, chemical manufacturers and other facilities having the potential to create air pollution. The Bureau of Air Monitoring and Mobile Sources maintains an air monitoring system of 55 monitors and works in conjunction with 11 counties that maintain an additional 177 monitors. These monitors are located in key positions throughout the state to collect daily information concerning ambient

¹ The U. S. Environmental Protection Agency (EPA) and the Florida DEP have designated six pollutants as Criteria Pollutants. Criteria Pollutants are present in the environment and have the potential to effect people's health at concentrations above known, safe levels in ambient air. These pollutants are: nitrogen dioxide, lead, carbon monoxide, sulfur dioxide, particulate matter, and ozone.

conditions. The Bureau also monitors and enforces standards for point source emissions (i.e., smokestacks) and supports several programs aimed at reducing the emissions from motor vehicles, the largest source of air pollution.

The Department of Highway Safety and Motor Vehicles (DHSMV), with technical support from DEP, administers a Motor Vehicle Inspections Program. This program exists in six counties which have a history of ozone problems. Vehicles in Broward, Dade, Duval, Hillsborough, Palm Beach, and Pinellas counties are required to undergo an annual tail pipe emissions inspection to identify high-polluting vehicles and repair them in a timely fashion. Broward, Dade, and Palm Beach counties have also implemented a Stage II Recovery Program which requires the collection of fumes from individual automobiles when they are being filled with gasoline.

The fiscal year 1996-97 budget for DEP's Air Quality Program is approximately \$22 million. Funding is provided by the Air Pollution Control Trust Fund. The Air Pollution Control Trust Fund is funded primarily through federal grants and air pollution permit fee collections. The budget has increased approximately 13% between fiscal year 1994-95 and 1996-97. (See Exhibit 1.) The Division and the Districts have allocated 182 full-time equivalent positions to the Air Resource Management Program.

Exhibit 1

The Air Resources Management Operating Budget Increased 13% Since Fiscal Year 1994-95 (In Millions)

	1994-95	1995-96	1996-97
Division	\$15.31	\$15.93	\$17.70
District	4.43	4.56	4.63
Total	<u>\$19.74</u>	<u>\$20.49</u>	<u>\$22.33</u>

Source: Department of Environmental Protection

Findings

Outdoor air pollution has decreased significantly reducing public health risks.

Air quality has significantly improved. DEP, in accordance with the Clean Air Act, designates areas of the state as in attainment, non-attainment or unclassified status regarding pollutants for which air quality standards have been adopted. Between 1987 and 1994, Florida had six non-attainment areas due to high levels of ozone.

Non-attainment of ozone standards is primarily caused by automobile emissions. The DHSMV Motor Vehicle Inspection Program addresses the problem of reducing auto emissions of ozone-creating compounds, especially volatile organic compounds (VOCs).

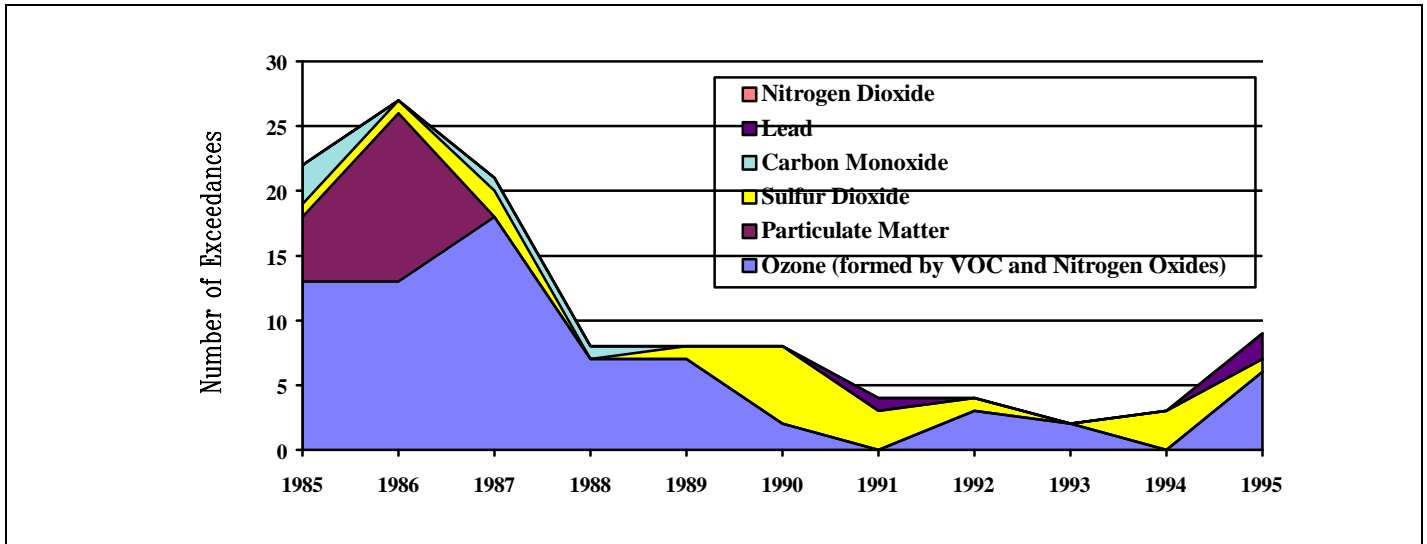
For 1996, DHSMV estimates the Program reduced ozone-creating compound emissions by 9% or 50 tons per day, and carbon monoxide emissions by 17% or 628 tons per day. The combination of VOCs and nitrogen oxide emissions, in warm sunlight, produce ozone. Through the efforts to regulate both non-point and point sources of air pollution, all areas of non-attainment had reduced ozone to acceptable levels by 1995. Thus, there are currently no non-attainment areas in the state.

Since 1985, statewide exceedances of acceptable levels of criteria pollutants have decreased from a high of 27 in 1986 to 9 in 1995. An exceedance occurs when the amount of a pollutant in the ambient air surpasses the known, safe concentration level. (See Exhibit 2.) The increase from 1994 to 1995 is due to the increasing number of cars increasing ozone emissions and the siting of two new lead recycling facilities in Florida.

In addition to the overall reduction in exceedances, there is a declining tonnage of pollutants being released into the air. Because of reduced emissions, 99% of Floridians currently live in areas where the outdoor air is in compliance with ambient air standards, an increasing trend from the early 1980s. (See Exhibit 3.)

Exhibit 2

Statewide Exceedances of Ambient Air Pollution Standards Have Declined



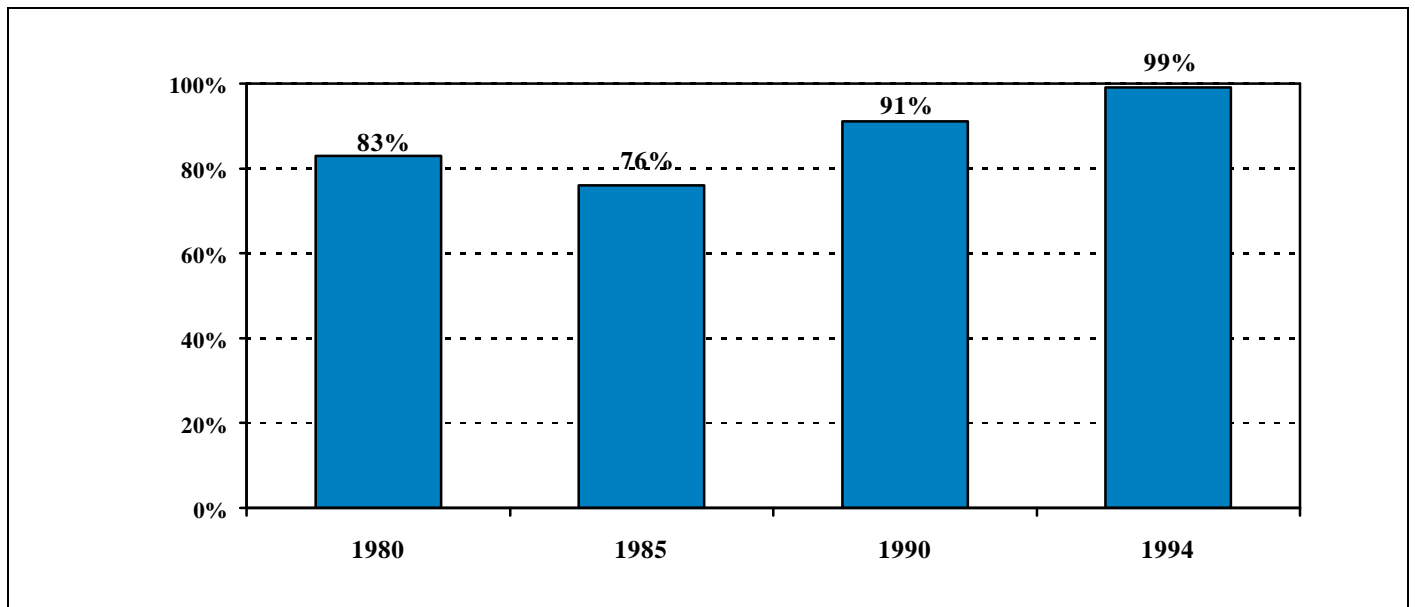
Source: Department of Environmental Protection.

However, population growth could reverse current downward trends. DEP management is concerned that progress in reducing ambient air pollutants may not continue. Program staff believe that current ambient air pollution trends may reverse within several years as population growth continues. Specifically, there is concern that increased nitrogen oxide (NO_x) emissions, including Nitrogen Dioxide (NO₂), from automobiles and power plants may begin

to exceed current standards within two to five years unless actions are taken to curtail emissions. As Exhibit 2 shows, there is a recent increase in statewide exceedances of ambient air pollution standards, most notably ozone. Program staff indicated increased regulation may be needed to reduce the allowable limits of NO_x released into the air.

Exhibit 3

An Increasing Percentage of Floridians Live With Clean Outdoor Air



Source: Department of Environmental Protection.

Conclusions and Recommendations

Current state actions have significantly contributed to reducing the public health risks associated with outdoor air quality. The six counties that were in non-attainment with ozone standards as recently as 1994 have reduced ozone to acceptable levels. In addition, statewide exceedances of outdoor air pollution standards have declined as have the tons of pollutants released into the air. As a result an increasing percentage of Floridians live in areas with clean outdoor air.

Given the success of the current Program, we do not recommend any changes in state ambient air pollution reduction efforts at present. However, DEP should continue its efforts to ensure current progress is maintained.

Agency Response

The Secretary of the Department of Environmental Protection reviewed the report and agreed with it in its entirety.

This project was conducted in accordance with applicable evaluation standards. Copies of this report may be obtained by telephone (904/488-1023 or 800/531-2477), by FAX (904/487-3804), in person (Claude Pepper Building, Room 312, 111 W. Madison St.), or by mail (OPPAGA Report Production, P.O. Box 1735, Tallahassee, FL 32302). Web site: <http://www.state.fl.us/oppaga/>

Project Supervised by: Julie Ferris (487-4256)

Project Conducted by: Bob Dahlstrom (487-9271)
Lyndon Rodgers (487-3805)