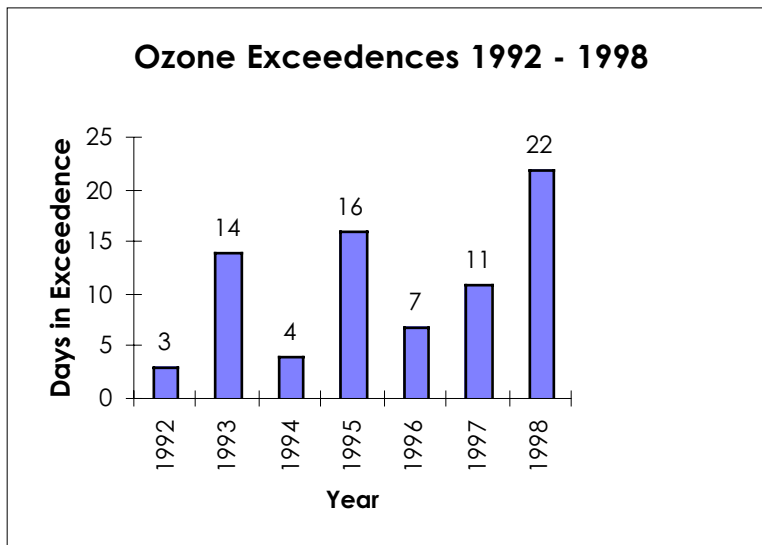


Air Quality In Atlanta

Georgia's Air Quality

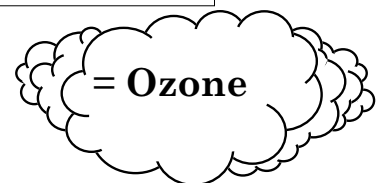
- Georgia's overall air quality is good. However, the 13 county Atlanta nonattainment area was designated as a "serious" nonattainment area for ground-level ozone in the 1990 Clean Air Act Amendments (CAAA). This means Atlanta violates air quality standards designed to protect public health.
- A large portion of the smog in Atlanta is caused by the nearly 2.8 million cars and light trucks that are driven more than 100 million miles per day.
- While pollutants from newer cars continue to be reduced, the growing number of vehicles and miles driven are the main reason Atlanta has an air quality problem. They constitute 58% of the emissions in the Atlanta region.
- The ozone season is May through September. **Table 1** shows the number of times in past years that Atlanta has exceeded air quality standards. In 1998, Atlanta had 22 exceedences, with 16 occurring on weekends.

Table 1



What is Ground Level Ozone?

VOCs + NO_x + Heat / Sunlight



Where does ozone come from?

Volatile Organic Compounds (VOCs)

- Motor vehicles
- Oil, paint / chemical storage and handling
- Commercial and industrial operations
- Vegetation

Nitrogen Oxides (NO_x)

- By-products of burning fuel and combustion

Air Quality In Atlanta

Why should I be concerned about air quality?

- ✓ Itchy Eyes
- ✓ Lung Inflammation
- ✓ Aggravated Asthma
- ✓ Chest Pain
- ✓ Coughing
- ✓ Difficulty Breathing

Ozone

90% of the ozone inhaled into the lungs is never exhaled. This affects physical activity in healthy people and causes more severe effects in people with sensitive respiratory systems.

Carbon Monoxide (CO)

When CO is inhaled, it reduces the amount of oxygen delivered to body tissues. In a healthy person, this reduces the ability to perform physical exercises. CO can threaten the quality of life for persons with chronic heart disease because their systems are unable to compensate for the decreased oxygen.

Why does Atlanta have an air quality problem?

Atlanta continues to grow without a balanced transportation system that provides access to alternative modes of transportation. As a result, the number of vehicles and miles driven has increased dramatically, resulting in worsened air quality. Some of the characteristics that contribute to Atlanta's air quality degradation are listed below.

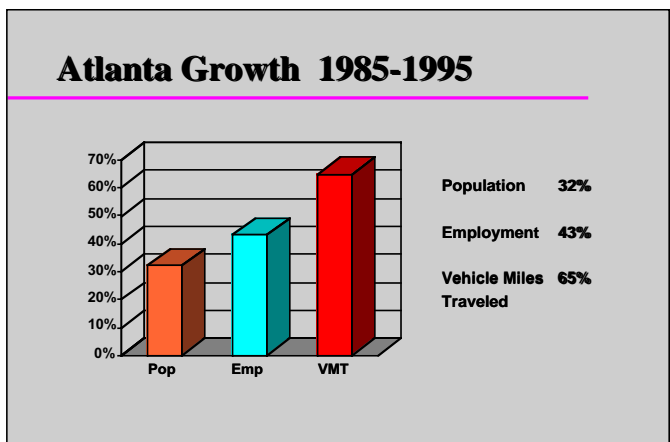
Population: 3,033,400 (1997)

Vehicle Miles Traveled in a Day: 103,577,806 (1997)

Percent in Carpools: 12% (1990 census)

Percent using Public Transit: 5.1% (1990 census)

Table 2



It is natural to see an increase in Vehicle Miles Traveled (VMT) with population growth. However, **Table 2** shows Atlanta's VMT outpacing the population growth.

Clean Fueled Vehicles & Government Regulations

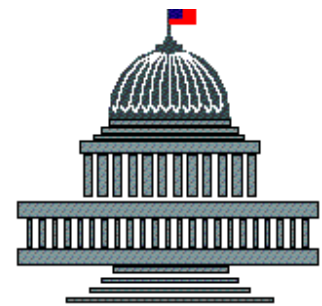
There are currently two national legislative acts driving clean air initiatives. These are the Clean Air Act Amendments (CAAA) and the Energy Policy Act (EPACT), outlined below.

Clean Air Act Amendments

In order to address air quality issues, the US Congress created the Clean Air Act Amendments of 1990. These amendments are designed to reduce exposure to pollutants generated by industry and transportation. Under the CAAA, areas not meeting the standards were classified based upon the severity of their air quality problem. Those areas are classified as nonattainment areas. Nonattainment areas designated for ozone exceedences fall under four categories:

- Marginal**
- Serious** (Atlanta and Washington DC)
- Severe** (Chicago and Milwaukee)
- Extreme** (Los Angeles)

Denver is also a "serious" nonattainment zone, but for carbon monoxide exceedences rather than ozone.



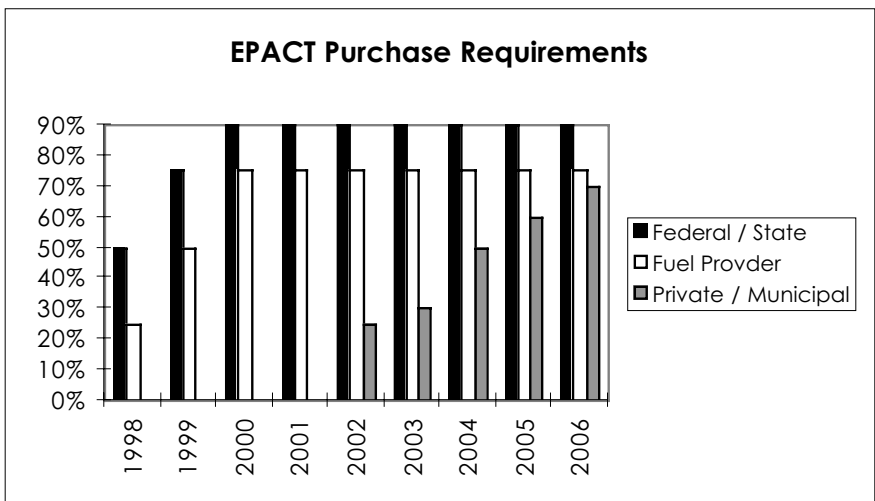
Energy Policy Act

The Energy Policy Act of 1992 requires certain fleets in large urban areas to purchase Alternative Fuel Vehicles (AFVs). EPACT requirements should not be confused with Clean Fueled Fleets Program requirements. More details on the EPACT are in **Section 7** of this workbook.

About EPACT

- Targeted toward energy security and the use of domestic fuels.
- Applies to Light Duty Vehicles.
- Federal, state and fuel provider fleets must have 25 - 75% of new vehicle purchases as AFVs for 1999 model year. These percentages continue to increase until 2001.
- Private and municipal fleets may begin to meet new vehicle purchase requirements of 30% as AFVs in 2002, continuing to increase to 70% by 2005. This requirement will be determined in 1999.

Table 3



Clean Fueled Vehicles & Government Regulations

Federal Clean Fueled Fleets Program

The Clean Fueled Fleets Program (CFFP), developed as a part of the Clean Air Act Amendments, is intended to improve air quality by encouraging the use of cleaner burning vehicles. This program was initially required by all areas classified as Serious, Severe or Extreme in nonattainment status. However, several areas chose to implement alternate emissions reduction programs. Originally, 22 cities were covered by CFFP. Covered areas now include Atlanta, Chicago, Denver, Los Angeles, Milwaukee and Washington DC. The CFFP requires a percentage of new fleet vehicle purchases to be Clean Fueled Vehicles (CFVs). **Table 4** depicts the new vehicle purchase requirements for purchases made under the CFFP.

Purchase Percentages

Model Year*

Table 4

	1999	2000	2001+
LDV/LDT	30%	50%	70%
HDV	50%	50%	50%

* Model Year:
Sept. 1 - Aug. 31

Why fleets?

Fleets operate more vehicles in a concentrated area and drive more miles than personal-use vehicles. Fleets also have a higher rate of turnover. When fleets begin using CFVs, the infrastructure to support more of these vehicles will follow.

CFFP and EPACT

The most critical difference between the two programs is simple:

- The Clean Fueled Fleets Program requires a Clean Fueled Vehicle purchase.
- The Energy Policy Act requires an Alternative Fuel Vehicle purchase.

Clean Fueled Vehicle vs. Alternative Fuel Vehicle

An Alternative Fuel Vehicle runs primarily on a fuel other than gasoline or diesel, but a Clean Fueled Vehicle is determined by emissions standards, not fuel type. **In other words, an Alternative Fuel Vehicle is not necessarily a Clean Fueled Vehicle.**

It would be beneficial to look at the requirements of both the CFFP and EPACT and choose a vehicle purchase that meets both requirements.

Alternative Fuel Vehicles are...

Alternative Fuel Vehicles run primarily on a fuel other than gasoline or diesel.

Dedicated vehicles run only on one fuel in a single fuel tank.

Dual fuel (sometimes called bi-fuel) vehicles run on one of two different fuels - each fuel contained in its own tank.

Flexible fuel vehicles run on a blend of two fuels, or can run solely on an alternative fuel or gasoline or diesel.

Conversions are gasoline vehicles that have been retrofitted with alternative fuel systems. Until recently, most AFVs available to the public were conversions. However, more automobile manufacturers are offering factory-built AFVs running on ethanol, natural gas, propane and electricity.

Clean Fueled Vehicles & Government Regulations

Emissions Benefits

Benefits of Low Emission Vehicles
1998 gasoline vehicle emission standards as base

<u>Tailpipe Standards</u>	Reductions in:	
	NMHC	NOx
LEV	70%	50%
ULEV	84%	50%
SULEV*	98%	95%
ZEV	100%	100%

Table 5

* SULEV (Super Ultra Low Emission Vehicle) is a California - only emission standard.

Definitions:

LEV = Low Emission Vehicle

ULEV = Ultra Low Emission Vehicle

SULEV = Super Ultra Low Emission Vehicle

ZEV = Zero Emission Vehicle

NMHC = Non-Methane Hydrocarbons

NO_x = Nitrogen Oxides

- **Natural Gas Vehicles (NGVs) and Propane Vehicles** that have been certified to EPA LEV standards or better can **reduce tailpipe emissions between 70 and 90%**.
- **Electric Vehicles** are certified to ZEV standards, with **tailpipe emissions reductions of 100%**.
- Driving a Clean Fueled Vehicle will reduce the amount of emissions from your vehicle into the air.
- Currently, more than 2,500 Alternative Fuel Vehicles are being driven in the Atlanta area.



Clean Fueled Vehicles & Government Regulations

Fueling Stations in Atlanta

Currently, there are 29 electric recharging stations, 29 natural gas refueling stations and 11 propane refueling stations in the Atlanta area. However, not all of these are available for public use.



Support

Several initiatives are currently underway throughout Georgia to support the establishment of alternative fuels and their infrastructure. Some examples include:

- Georgia Alternative Fuel Vehicle (AFV) license plates. Vehicles that are eligible for the plate are allowed access to express lanes while carrying only one passenger.
- Georgia State Income Tax Credit of \$1,500 toward the purchase, lease or conversion of a certified Clean Fueled Vehicle (CFV). *Vehicle purchases used to meet Clean Fueled Fleets Program requirements are not eligible for the tax credit.*
- Increasing number of AFV fueling stations.



The issue of air quality is becoming increasingly important to Atlanta residents. Companies using CFVs can expect positive reactions from their customers.

- 68% of the general public believes air pollution will affect Atlanta's growth and economic well-being.*
- 58% are willing to pay more taxes to support transition to AFVs to help pollution.*

* *Source: Georgia State University Applied Research Center 4/97.*

Georgia's Clean Fueled Fleets Program

The purpose of the Clean Fueled Fleets Program (CFFP) is to place more Clean Fueled Vehicles (CFVs) on the road and to help Georgia reduce ozone emissions and improve air quality.

The Georgia Department of Natural Resources / Environmental Protection Division (EPD) is charged with enforcing the requirements of the CFFP. The CFFP requirements apply to certain fleets that operate vehicles in the 13 county Atlanta nonattainment area.

These counties are part of the CFFP because they are classified as part of the ozone nonattainment areas. This means ozone levels in these counties have exceeded standards set by the federal Environmental Protection Agency (EPA).

The requirements for the CFFP apply only to vehicles that are covered under the rules. "Covered" fleets are those that operate ten or more vehicles weighing less than 26,000 lbs. Gross Vehicle Weight Rating that drive at least 50% of their annual mileage in the covered area, and are either centrally fueled or could be centrally fueled.

This workbook will take you through the steps to determine whether your fleet is "covered" and falls under the requirements and must comply with the CFFP. The workbook will then show you how to comply with the CFFP if you are a covered fleet.

Fleets that are covered by the CFFP will be required to have a certain percentage of new vehicle purchases meet CFV emissions standards. The CFFP is "fuel neutral" and does not require the use of a specific fuel; it only requires that appropriate vehicle emissions standards are met.

Counties under CFFP:

- | | |
|-------------|--------------|
| 1. Cherokee | 8. Forsyth |
| 2. Clayton | 9. Fulton |
| 3. Cobb | 10. Gwinnett |
| 4. Coweta | 11. Henry |
| 5. DeKalb | 12. Paulding |
| 6. Douglas | 13. Rockdale |
| 7. Fayette | |

The following pages will help you determine whether your fleet is covered under Georgia's Clean Fueled Fleets Program, and what steps need to be taken to meet the requirements of the program.

Please go to **Section 1: Covered Fleets.**

