

## NEW JERSEY CLEAN AIR COUNCIL

Public Hearing, Monday April 23, 1995  
Trenton, New Jersey

**SUBJECT: STRATEGIES FOR MEETING CLEAN AIR GOALS**

### SCOPE

The 1995 Clean Air Council public hearing sought information and suggestions for implementing current CAAA (Clean Air Act Amendments). Present strategies for reducing air pollution in New Jersey, especially those affecting the personal automobile, have been the subject of controversy. The Council sought statements from affected groups concerning the effectiveness of current strategies. The Council also sought recommendations for new approaches or tactics for cleaning up New Jersey's air and positioning the State for compliance with federal Clean Air mandates.

Because enhanced I&M, reformulated gasoline and employee trip reduction programs have met with opposition, the Council decided to provide a forum where alternative solutions could be presented. The 1995 Hearing encouraged the presentation of strategies and comments on current programs required to comply with the Clean Air Act Amendments.

### BACKGROUND

Stationary and mobile sources of air pollution in New Jersey have been the subject of legislation and regulation in order to bring the State into compliance with the requirements of the Clean Air Act Amendments (CAAA). The first federal Clean Air Act (1970) set standards for ambient air quality in the United States. Each state was directed to write a State Implementation Plan (SIP) describing its strategy for meeting these federal standards. When an area does not meet the Clean Air Act air quality standards, it is said to be "not in attainment." New Jersey is not in attainment for carbon monoxide and ozone.

Although great strides have been made in New Jersey toward cleaner air (lead has been all but eliminated as an air pollutant), ground level ozone and carbon monoxide are still persistent problems. In

1994 exceedences for carbon monoxide numbered three (3) days and ozone seven (7) days.

At the present time, regulating auto emissions offers the most economical way to reach clean air goals. Controlling auto emissions is less costly than further reduction from stationary sources. Although cars are cleaner than in the past (vehicles built before 1981 emit 10 to 15 times as much pollution as a new vehicle), the number of cars on New Jersey roads increases yearly and the number of VMT (vehicle miles traveled) increases as well. Therefore, yearly gains in pollution control have been countered with yearly increases in the number of VMT and the number of cars on New Jersey roads. However, changes involving personal automobile use are not well received by the public. Protests against reformulated fuels and enhanced I&M have been common.

Additional modalities such as alternative fuel vehicles, selective tree planting, reordering of municipal zoning and reduction in VMT (vehicle miles traveled) are among the suggestions made at this hearing.

Alternative fuel vehicles offer a possible approach to the problem of the older polluting car. Targeting the polluting cars would seem to produce the greatest benefit. Since 10% of all vehicles produce 60% of carbon monoxide (CO) emissions and 40-50% of hydrocarbon (HC) emissions, it would seem logical to target older cars. Scrappage of these cars has been a component of State Implementation Plans (SIPs) in California and Texas, but these programs have not met with great success. If the problem of convenient refueling can be solved, natural gas conversions offer a viable solution to the problem of the older car.

Selective tree planting is another possible way to minimize the air pollution caused by the heat-island effects and excessive summer energy use. However, the potential for additional reactive organic compounds in the atmosphere due to emissions from these trees needs to be evaluated. A recent cost/benefit analysis of hydrocarbon (HC) emissions from twelve shade trees in the Los Angeles, California Air Basin showed that there are large differences in emission rates among different tree species. Specific tree emissions need to be factored into the decision regarding which shade trees to plant. Studies in eastern Georgia and western Alabama involving the contribution of isoprene and terpene emissions to the atmosphere have some applicability to New Jersey. Such common species as Ash and Maple were found to produce negligible emissions, whereas Oak and Sweetgum were high producers of isoprene.

Reduction in VMT (vehicle miles traveled) is another strategy for improving New Jersey's air quality. Employee trip reduction programs attempt to address the problem of VMT. However, they do not seem to be the answer to this problem since the work commute comprises only a limited and shrinking portion of total travel.

Targeting work trips alone will not effect significant gains in air quality. Recommendations from the State Plan for town centers would reduce car dependence and encourage mass transit. Sprawl generates more vehicle miles of travel than more compact forms of development. Although New Jersey has more miles of highway per square mile than any other state, over 60 percent of the State's interstate system is operating at or above capacity during peak periods of use. The State Plan recommends the development of centers or "compact forms of development" in order to reduce the need for additional roads and to reduce car dependence.

New Jersey has long been in the forefront of programs aimed at clean air. It was the first state to implement an inspection and maintenance program for motor vehicles in February of 1974. In 1983 it was the first state to require Stage II gasoline pumps to trap gasoline vapors. Marine vapor controls to capture fuel vapors during marine transfer operations were another New Jersey innovation. In its 1983 SIP, New Jersey committed to improved control on major industrial sources of volatile organic emissions. Innovative and long range solutions to air quality problems is a continuing tradition in the State.

#### RECOMMENDATIONS

\* Consistent with recommendations in previous hearing reports, the Council recommends a continuing comprehensive statewide public education program aimed at increasing the public's understanding of the air pollution problem and the action needed to correct the problem. This program should continue to describe the relationship between air pollution and automobile use.

\* The Council recommends that in keeping with the State Plan, municipalities, as well as the county and state administrations should include in their Master Plans the coordination of land-use and transportation planning in order to link residents with mixed-use centers for employment, commerce and recreation. These Master Plans should reflect the fact that the reduction of vehicle miles traveled (VMT) results in cleaner air.

\* Testimony was presented to the Council that New Jersey motorists receive taxpayer subsidies of more than \$700 million each year to build and maintain roads in the State and for other motor vehicle related expenditures. To reduce VMT, or to prevent continuing increases in VMT, New Jersey needs to improve mass transit throughout the State by appropriate planning and by increasing funding for public and private mass transit operations.

\* The Council supports the reformulated fuel program (RFG) and recommends that the State continue to evaluate its effectiveness and to educate consumers regarding its beneficial role in air quality improvements.

\* The Council recommends a pilot program in retrofitting high polluting older cars with natural gas conversions. A decrease in tax on fuels such as natural gas would provide incentives for this new technology. Additional financing for such a project could come from funding for the employee trip reduction program.

\* The Council recommends that the Bureau of Forest Management investigate the effect of trees on air pollution. The Council also supports further study regarding the role that trees play in energy conservation.

\* The Council continues to support enhanced inspection and maintenance as a key component in reducing air pollution in the state.

\* The Council supports the formulation of a statewide Environmental Master Plan that would provide a comprehensive approach to improvements in air quality and other environmental problems.

\* Consistent with recommendations in previous reports, the Council recommends appropriate, consistent funding of local agencies, such as the CEHA Agency. As inspections are delegated to local authorities, the State's general revenues should provide the funding for mandated local inspections.

\* The research and testing of alternate technologies, such as onboard diagnostics and remote sensing, aimed at reducing auto emissions are supported by the Council.

#### ORAL TESTIMONY

Robert Shinn, Commissioner of the New Jersey Department of Environmental Protection.

The state of New Jersey needs to balance the need to attain clean air quality standard with improving the state's business climate.