

AIR QUALITY NEEDS BEYOND 2000

SCOPE

New Jersey has worked at complying with the National Ambient Air Quality Standards since the passage of the Clean Air Act (CAA) in 1970. After decades of regulations on mobile and stationary sources of air pollution, New Jersey has made great strides, but is still out of compliance for ozone.

Ground level ozone is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx) react in the presence of sunlight. With respect to VOCs and NOx, New Jersey has already achieved approximately 95% of the reductions which would be required to meet the one-hour ambient air standard for ozone. However, the remaining 5% may prove to be difficult to achieve because mobile sources are the main problem and are difficult to control. Achieving adequate reduction on high ozone days will likely require greater attention to short-term emissions rates and may require control strategies specific to these times.

Air toxics and fine particulates (PM 2.5) remain a public health concern in New Jersey. Efforts to better understand the nature and effects of these pollutants need to be continued.

This public hearing solicited advice from interested parties on ways in which New Jersey can meet clean air goals.

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) established the basis for achieving National Ambient Air Quality Standards in the United States. Each state was directed to write a State Implementation Plan (SIP) describing its strategy for attaining and maintaining these federal standards. When an area does not meet the Clean Air Act standards, it is "not in attainment" and New Jersey is still not in attainment for ground level ozone.

At the present time the clean generation of energy and advanced auto emissions control seem to offer the most beneficial path to reach clean air goals. 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 in New Jersey increases yearly and the number of vehicle miles traveled (VMT) continues to increase. Yearly gains in pollution control have been countered by these yearly increases. Also, there needs to be greater focus on short-term emissions from the generation of energy during peak ozone periods.

Other approaches, such as the LEV II (low emission vehicle), use of alternative fuels, tax incentives for low emission vehicle purchase and "smart growth" have been suggested at this hearing. Although New Jersey has more miles of highway per square mile than any other state, over 60% 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 road and 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. Emissions of VOCs during gasoline transfer operations are now under strict control at marine terminals, refineries, gasoline storage facilities and tanker trucks all the way to the gasoline stations and the motor vehicle. Innovative and long-range solutions to air quality problems is a continuing tradition in the State.

RECOMMENDATIONS

1. Because New Jersey has not yet attained the federal one-hour air quality standard for ozone, the State needs to further decrease the emissions of ozone-forming pollutants. The Clean Air Council recommends that the State adopt rules for the regulation of volatile organic compounds (VOCs) as set forth in the Ozone Transport Commission's (OTC) six Model Rules (see www.sso.org/otc) governing consumer products,

architectural and industrial coatings, portable fuel containers, solvent cleaning, mobile equipment repair and oxides of nitrogen (NOx) emissions from select fuel combustion sources.

The Council has several recommendations dealing with mobile sources, specifically automobiles, because of their substantial contribution to air pollution, and the recognition that the new ozone standard will require further control of mobile sources since they are the major contributor of air pollution in the State. These recommendations include the following:

2. The Council continues to support full implementation of the enhanced I/M (inspection and maintenance) program for automobiles. (N.J.A.C. 7:27 -15)

3. The Council recommends that the NJDEP focus on the operating efficiency of mobile sources. As a step in improving such operating efficiency, the Council further recommends that the state provide financial incentives for the purchase of Ultra Low, near zero, Emission Vehicles (ULEV), hybrid vehicles and fuel-efficient vehicles. The Council supports legislation that would provide such financial incentives.

4. The Council recommends that New Jersey Transit continue to increase its purchase and use of alternative fuels, advanced technology buses, and fuel-efficient buses.

5. The Council recommends that the public policy of New Jersey should be to increase the capacity of public transportation to the maximum extent possible. This policy should encourage more light rail projects as well as programs that better coordinate and connect existing public transportation systems.

6. The Council recommends that the State motor pool continue to replace the state vehicle fleet through the purchase and use of alternative fuels, alternative fuel vehicles, ULEV, and fuel-efficient vehicles as much as possible.

7. The Council recommends that the State continue to evaluate and study the California Low Emission Vehicle 2 (LEV2) or similar programs for their air quality benefits and consider such programs or strategies for the State.

8. The Council recommends that the State actively pursue the "smart growth" portion of the State Plan in order to reduce the increasing VMT statewide, recognizing that significant improvements in public transportation infrastructure will be required to meet this goal.

9. The Council supports the continued use of onboard fueling vapor recovery, which will lessen emissions while refueling.

10. The Council continues to support a statewide public awareness and education program with emphasis on the impact of automobiles on air quality in general and air toxics in particular. This program should continue to stress the importance of reducing vehicle miles traveled, the advantage of the use of public transportation, the benefit of the purchase and use of LEVs, ULEVs and ZEVs (respectively, low, ultra-low and zero-emission vehicles), as well as the importance of good vehicle maintenance.

11. The Clean Air Council, in its own deliberations, recognizes that reasonable measures to smooth the flow of motor vehicle traffic and lessen street and highway congestion will decrease air pollution from cars and trucks. The Council knows that over the last two decades, New Jersey's municipalities, counties, and the State Department of Transportation have taken many positive steps to improve traffic flow. These steps include the following: providing left - and right - turn lanes at many intersections; reconstructing certain intersections to eliminate confusion, jogs, and offsets which interfere with signal timing and traffic flow; improving signal timing; converting "isolated" signal installations from fixed timing to actuated operation; putting signals on "flashing" mode at night where traffic flows permit; synchronized, interconnected signals favoring inbound traffic during the morning rush hour, and outbound traffic during the evening rush hour; and synchronization where appropriate during the day; other approaches, such as bike paths, bus shelters, carpool / vanpool encouragement, etc.

12. To the extent that there remain additional opportunities to implement any of these "reasonably available control measures", the authority responsible for each area should be encouraged to complete the measure.

The Council understands the question of the cost of each investment. The Council also understands that, for comparison, New Jersey has committed \$500 million to the Enhanced Motor Vehicle Inspection / Maintenance System.

In addition to the above automobile-related recommendations, the Council has additional recommendations as follows.

13. The Council supports efforts to improve recycling of all potentially usable waste streams and to diminish reliance on landfills for solid waste management. Existing operating as well as closed landfills should be tapped to capture and re-use landfill gases, which contribute to global warming.

14. The Council continues to recommend more validation and verification of the air toxics data and fine particulate data collected in the State.

15. The Council recommends that the NJDEP continue to be alert to the development of new control technologies for air toxics, so that such technologies can be incorporated into the Department's state-of-the-art manuals for use where appropriate in New Jersey.

16. The Council recommends that the state bring smaller, yet significant, industrial and electric generating stationary sources into air pollution control programs to help achieve the State's air quality goals. Emissions from distributed generation during high ozone periods need to be addressed so that distributed generation sources lower precursor emissions rather than adding to the peak ozone problem.

17. The Council recommends that the State adopt financial incentives for the use of alternative and renewable sources of energy to replace or complement polluting fossil fuels.

18. The Council recognizes that indoor sources of air pollution contribute significantly to health concerns and recommends that the NJDEP provide technical assistance to those agencies in the State which regulate and investigate indoor air quality.

ORAL TESTIMONY

Commissioner Robert C. Shinn, NJ Department of Environmental Protection

Before addressing what future actions the NJDEP should take to curb air pollution, I want to review past successes. The strategic planning process that we initiated has been working well. Our database contains more than 30 years of air quality monitoring data. New Jersey air is now cleaner than it has ever been since monitoring began. This is no small feat given the density of people and vehicles. The fact that the Supreme Court upheld that public health, not cost, is the primary consideration for air quality standard is critical.

Therefore, going forward, we see the state's responsibilities as maximizing emissions reduction cost effectiveness and using of multi-site initiatives where feasible. The State intends to use innovative strategies to encourage sustainability, improve energy conservation and provide co-beneficial emission reduction whenever possible.

Beyond 2000 the most important aspect will be to encourage multi-state coordination through the Ozone Transport Assessment Group (OTAG). This involves 28 eastern states that are receivers and senders of air pollution. An example of successful OTC action is the NOx budget rule, which provides a flexible control program for very large boilers and electric generating units mostly in power plants. This rule sets the total NOx reduction and caps NOx emissions for each state in the region. Each source is given an initial NOx emission allowance for the ozone season (the seven-month period from April through October) and is free to trade or acquire allowances to the extent that the total budget is not exceeded. We are now in phase 1, phase 2 starts on May 1, 2002.

This NOx budget rule should be a model for the control of other pollutants including mercury, sulfur dioxide and carbon dioxide. A four-pollutant strategy for power plants could be built from our past success.

The current State Implementation Plan is tied to the OTC's Memorandum Of Understanding (MOU) which supports six additional model rules drafted by the OTC with the help of many stakeholders. The DEP will propose all of these rules to close the gap on emission reductions needed to attain the one-hour ozone air quality standard. We will use these rules along with suggestions from this hearing to provide multiple emission improvement.

Grace Sinden, American Lung Association of New Jersey

It is evident that we have come far in improving air quality in the past 30 years. However, the American Lung Association is very concerned about the sharp rise in asthma in New Jersey. We estimate that 430,000 people in New Jersey suffer from asthma and 122,000 of those are children. Asthma deaths in New Jersey doubled between 1980 and 1990 and we know that air pollution is a dangerous trigger for asthma attacks. A recent Robert Wood Johnson study found that hospital admissions for asthma rise significantly on high ozone days.

While New Jersey has reduced pollution from stationary sources, it has a growing problem with mobile sources. On-road vehicles are responsible for 44% of NOx and 30% of VOCs; therefore, cleaner cars, buses and trucks will be the critical challenge in achieving clean air. New Jersey should be a leader in this area. The following are ALA's recommendations for cleaning the air:

1. Adopt the California Low Emission Vehicle (LEV II) program to promote low and zero emission vehicles. This has already been done in New York, Massachusetts, Vermont and Maine.
2. Create tax rebates to clean, fuel efficient car buyers and conversely place an extra tax on SUVs and vans to compensate for their disproportionate air pollution.
3. Promote New Jersey's strong environmental policy as a lure for a highly trained work force.
4. Enact taxes and other incentives for efficiency and use of alternative sources of energy to replace or augment polluting fossil fuels.
5. Plan for the use of alternative non-polluting buses by New Jersey Transit.
6. Eliminate diesel fuel vehicles.
7. Oversee the efficiency of enhanced vapor recovery systems at service stations.
8. Encourage municipalities to conduct once a week garbage collection and begin the regulation of two-stroke engines.
9. Mandate zero emission school buses to protect our children.
10. All of these goals should be conveyed to the public through an active public information program through media as well as municipalities.

Paul Liroy, Environmental & Occupational Health Sciences Institute

The adoption of the eight-hour ozone standard and its re-affirmation by the US Supreme Court in 2001 are important first steps toward improving respiratory health in New Jersey. We know from field studies conducted on active children in summer camps that there are changes in lung function on high ozone days. Additionally an analysis of Emergency Room visits at seven New Jersey hospitals indicated that asthma attacks in summer are related to high ozone. There are many toxicology studies that prove stress on the lungs is related to atmospheric ozone.

These studies point to the necessity of overall reduction in atmospheric ozone not just the reduction of peak occurrences. The appropriate modeling simulations coupled with NOx reductions can direct the OTC to design ozone precursor reduction strategies that focus on reducing the burden of ozone and not just eliminating the peak readings.

In regard to other pollutants, especially PM 2.5, recent epidemiological studies completed since 1997 support the need for this standard, even though causative agents or mechanisms are still unknown. We now know that we can reduce the particulate matter if we reduce the ozone because much of PM 2.5 in New Jersey is in the form of sulfates and VOCs. These particulates will be reduced when we reduce the precursors of ozone.

Regarding air toxics, we need to develop better toxicology to assess reasonable low exposure risk issues because the current unit risk factor design values do not reflect actual potential risk. We also need to minimize the introduction of new air toxics to the environment by conducting a thorough analysis of single or multiple media exposures. The toxicological studies need to focus on the potentially exposed population.

Indoor sources need to be studied since 95% of a citizen's time is spent indoors. The state needs to support the RIOPA (Relationship between Indoor and Outdoor Personal Air) studies that are showing greater concentrations of chemicals like benzene and formaldehyde indoors.

Jim Sell, Counselor National Paint & Coating Association

NPCA is an industry association established in 1888 consisting of over 400 companies, which manufacture consumer paint products and industrial coatings.

The association's efforts to reduce solvent materials from coating pre-date the federal clean air regulations. Waterborne coatings now represent over 80% of the coatings applied today.

The problem with waterborne coatings is that they are not as durable as coatings made with solvents. If a coating must be applied more often or does not last as long, there will be more repainting. Even with a lower VOC coating, the net result may be an actual increase in VOC emissions because more of the coating is being used. Sometimes the expectations of the regulations on VOCs can exceed the realistic possibilities of coatings technology, where too low a VOC limit can actually eliminate a viable low VOC or waterborne coating.

There are, and will probably always be performance trade-offs in the industry that will not permit the elimination of VOCs. Many coatings can be used in lower temperatures in spring and fall when there is no ozone formation. The absence of certain solvents like glycol makes freeze/thaw stability highly problematic. There are other problems, such as the fact that stains absorbed into wood need solvents to do a better job.

We estimate that our suggested table of standards can minimize trade-offs while securing additional VOC emission reductions beyond those achieved by the national AIM rule. Our table of standards would result in an additional 12% to 13% reduction in VOC emissions. Our high VOC specialty coatings, such as roof coatings, are used in low volume and would require multiple applications if VOCs were not present.

Joe Yost, Senior Affairs Rep, Consumer Specialty Products Assoc.

CSPA is the Consumer Specialty Products Association, formerly the Chemical Specialties Manufacturers Association. Currently, 43 of our member companies have facilities in the State. We represent such companies as Honeywell, Procter & Gamble and E.I. duPont de Nemours. Member companies manufacture and sell products used in every American home.

Along with the Cosmetic, Toiletry and Fragrance Association (CTFA) we support the adoption of uniform consumer products regulations for the control of VOCs in the Northeast and Mid-Atlantic states. Currently, there are two sets of regulations being considered. One is the California regulations and the other is the OTC Model Rule for Consumer Products. CSPA member companies manufacture and market almost every product covered by the draft OTC model regulation for consumer products. We therefore strongly urge that if NJDEP decides to promulgate regulations for consumer products, then CSPA urges the State to adopt the OTC Model. Consistency in the manufacture and marketing of these products is critical to our member's financial health.

During the last ten months, CSPA has worked with state officials in the OTCV's consumer products workgroup. We commend their efforts to establish uniform clean air regulations within the ozone transport region. We also support the OTC's decision to establish January 1, 2005 as the effective date for OTR states' consumer products regulations.

Jeff Trask, American Petroleum Institute

New Jersey requires service stations to have vapor recovery systems. This technology involves the collection of vehicle refueling vapors and reduces VOCs in the environment as well as reducing service station personnel exposure.

Changes to this system will enhance vapor recovery by requiring onboard refueling vapor recovery. This vehicle-based system will be installed on most new gasoline vehicles by model year 2006. The vapors will be captured and recycled through the fuel system of the car.

Bruce Carhart, Executive Director, OTC

The Ozone Transport Commission was created in the Clean Air Act Amendments of 1990 to coordinate and control ground level ozone planning in the Northeast and Mid-Atlantic States. It was created because of the

regional air pollution problem. Although only 12 states and the District of Columbia are in the OTC, 28 states are actually contributing to the regional ozone problem.

The Ozone Transport Assessment Group developed six model rules to control ozone. We hope these rules will help the eight-hour ozone standard as well as the one-hour ozone standard. We looked at cost and at the quantity of reductions. At first we focused on 14 measures, we identified these in January 2000 with June 2000 as the deadline for setting priorities. We held hearings and the six model rules involve the following:

1. consumer products
2. architectural and industrial coatings
3. portable fuel containers
4. permeability standard for cutting VOCs
5. solvent cleaning
6. select fuel combustion sources, focusing on NOx emissions

We are hopeful that these rules will result in overall emissions reduction for the broader Ozone Transport Region (OTR). This package addresses both short-term and long-term needs of our states and addresses the emission reductions shortfalls that EPA identified. Of the six model rules, five of them focus on VOCs and one on NOx. Actual emissions state to state will vary.

Another problem that needs addressing is the distributed generation of electric power, that is, power generated at the point of use. These are relatively small units that may not be permitted. These sources are growing rapidly. However, some use electric power generators that are cleaner than others. For instance, microturbines are cleaner than diesel engines. We are very encouraged about the development that has gone into fuel cell technology. These will be even cleaner than microturbines. The question is, how can the use of these distributed generators be encouraged to use cleaner technology, especially the companies that are using diesel generators. One way would be by granting permitting incentives for cleaner technology.

The new Memorandum Of Understanding (MOU) just signed by all of the OTC states sets forth new regional control measures based on the six model rules. This will hopefully result in regional consistency and encourage regional markets for cleaner consumer and commercial products so that a particular consumer product could be manufactured to the same standard whether it is in New Jersey or any state in the region. Another recently signed MOU involves diesels and we support the new diesel engine and fuel rule. However, there are consent decrees with engine manufacturers for 2005 and 2006 and OTC states prefer this timeline. All of the OTC's MOUs are compatible with the states' SIPs.

John Filippeli, Chief USEPA Region 2 SIP Section

We have made great progress in controlling air emissions over the last thirty years. Although the US population has increased by 33% and our vehicle miles traveled (VMT) have increased 140%, air pollution nationwide for six principle air pollutants has decreased by 31%.

The new regulations for ozone and particulates were recently challenged in court by the American Trucking Association. On May 19, 1999 the D.C. Circuit Court limited the manner in which EPA could enforce those standards. The case went to the Supreme Court who upheld that public health, not cost, is the primary consideration for air quality standards. This reaffirms EPA's role in controlling air quality.

Although much progress has been made throughout the US, there are still six severe one-hour ozone areas and New Jersey is among them. I would like to address the one-hour standard, the eight-hour standard and strategies for bringing ozone into control.

Some of the strategies include a federal vehicle program. The LEV is expected to provide a 70 percent emission reduction, reformulated gasolines and more stringent standards for SUVs and light trucks will help as well, especially since these are becoming a larger percentage of the fleet. NOx control for heavy duty vehicles and off-road vehicles will help ozone. There is also energy conservation, less volatile products and solid waste control. Cool cities is another option for controlling urban heat effects. Painting light colors on surfaces has been shown to reduce ozone-forming heat islands. In Houston, where the ozone level is excessive, they are considering regulating lawn mowers, landscaping operations and port operations and fleet control. They are looking at "smart growth," which is land use and development more friendly to air quality. Houston is relying heavily on motor vehicle and off-road vehicle measures. New Jersey's current rate of progress report will be submitted to EPA and will show emission reductions through 2007.

Keith Ciampa, Vice President, World Energy Alternatives

I am here to talk about World Energy Alternatives, which is a company that manufactures and distributes biodiesel fuel, a renewable fuel that burns cleaner than traditional fossil fuels. The diesel engine was actually designed to run on peanut oil, so biodiesel is not new. It can be purchased at almost any commercial pump in Europe because it is not taxed and thereby saves money. In Medford Township, NJ a project there runs 20 of their school buses on biodiesel. Currently 35 states have fleets running on biodiesel. Gulf Oil is backing the current biodiesel project.

In the 1970s the Department of Energy planned to displace by the year 2000 10% of on-road petroleum and 30% by the year 2010. However, they succeeded in displacing only .3%. In the 1998 Act the use of alternative fuels gives credit as if the vehicle were light duty. In NJ this year 75% of the new light duty vehicles purchased have to be alternative fuel, either propane or natural gas. Biodiesel should be part of the mix. As a diesel replacement fuel biodiesel burns cleaner and is renewable because it is made from soybeans. The carbon dioxide produced in use is then sequestered in growing the product. It also produces less particulate matter. Although the BTU content is a little lower than low sulfur diesel, it is important to remember that gasoline uses almost as much energy to produce as it provides when we burn it. Biodiesel works in existing engines and it costs only about 15 cents more per gallon than gasoline.

The air quality benefits far outweigh this price difference. Disadvantages include its performance in cold weather and its NOx emissions, although the lower VOCs counteract the higher NOx. Also, there is no benzene or formaldehyde and no sulfur.

Daniel Dowiak, PSEG Energy Technologies - Mgr of Business Development

I represent PSE&G Energy Technologies, a company covering Virginia Beach through Boston and my topic is distributed generation (DG). We look at this as the generation of electricity and heat recovery. Cogeneration at the site of consumption. We focus on commercial and industrial sites. These on-site generation facilities range from 50 kilowatts to 50 megawatts. Some are microturbines, some are large gas turbines, some are diesel turbines. We are the exclusive distributors for the Honeywell 75 microturbine in the northeast.

The most efficient turbine to deploy is a gas reciprocating engine because it is easy to install, site, and permit. Some of these turbines will use renewable technology like photovoltaic and wind. Hopefully, future distributed generation will use fuel cells although the only one available currently is United Technologies CA 1200 kw system. There are others in development like balers, plug power and wave power.

Some experimentation with distributed generation has been done at supermarkets and fast food restaurants. In Chicago McDonalds ran their restaurant on a single 75 kw microturbine that ran well. Other ideal places for distributed generation could be office buildings and data centers. The advantage of on-site generation is its reliability and money saving potential. For the most part on-site generation is also cleaner.

Some of the restrictions on distributed generation are that the person who owns the generator must work through a load-serving entity, like PSE&G. The economics will improve if we experience a hot summer.

We are involved in a number of experimental uses of microturbines. One is at a milking farm in New York where they collect the manure, run it through a digester and the microturbines are run on the waste methane gas. Another one in Philadelphia at a naval shipyard operates off poultry and agricultural wastes. The other byproducts are fertilizer and water. Distributed generation is being designed into buildings today. We are installing microturbines and fuel cells into a 50 story, 1.5 million square foot office building in Philadelphia. As time goes on these units will become more green and more economical to install. The incentives currently being considered will begin to make renewable technologies very attractive. Fuel cells might be as cheap as \$3 a watt. This is getting close to real economy.

Jim Sinclair, Vice President, NJ Business & Industry Association

There are over 16,600 companies in our association and all of them are affected by air quality standards. The last twenty years have seen dramatic reductions in air pollution in New Jersey from industrial sources. Tons of reductions are evident from even 12 years ago. Industry has done its part in reducing emissions. Mobile sources and transport sources need to be targeted to further clean New Jersey's air. National and regional models for air pollution control are needed. New Jersey's current standards are too stringent.

Currently, public transportation does not serve the working public. The Governor should be at the forefront with incentives and encouragement for public transport and alternative technologies so that we see a dramatic reduction in air pollution from mobile sources.

Eileen Moyer, Director of Regulatory Relations, Reckitt Benckiser

The product line of Reckitt Benckiser includes Lysol, Wizard, Spray n' Wash and Old English furniture polish. As Director of Regulatory Relations for these products I recommend to the council that the consumer products model rule be adopted as set forth by the Ozone Transport Commission. This model rule will reduce VOCs and thereby act as a control measure for ozone reduction.

For the last ten months I have been part of an industry task force that has been working cooperatively with the OTC committee to develop a model rule that will regulate the VOC content of consumer products sold in the Northeast. The resulting products model rule is one we urge New Jersey to adopt. Although the industry is unsure of how compliance will be met, consistency and uniformity are essential to industry's reasonable compliance. A lack of harmony on these rules will create barriers to interstate commerce.

Travis Madsen, NJ Public Interest Research Group

As the Clean Air Associate with NJ PIRG, New Jersey's leading consumer advocacy organization with 20,000 members, I intend to address three issues; New Jersey's progress toward meeting the one-hour ozone standard, the OTC model rules and the long-term possibility of reducing ozone levels. Despite 30 years of progress in cleaning New Jersey's air, attainment of the one-hour ozone standard is not assured. In order to be in attainment New Jersey needs to cut NOx and VOC emissions. We must not lose sight of the fact that protecting public health is the ultimate goal of clean air programs. We have an obligation to protect asthmatics in the population and we know that ozone makes them more sensitive to allergens. In Atlanta during the Olympics traffic was curtailed with a resulting 41 percent decrease in asthma-related hospitalizations.

Passenger cars are the single largest source of ozone precursors, 68 percent of on-road NOx and 57% of on-road VOCs. Despite federal programs to reduce mobile emissions, like the tier II emissions standards, by 2005 cars and trucks will still contribute 27% of all ozone precursors. New Jersey should make reducing emissions from motor vehicles a priority. We need to implement California's LEV II programs by 2008. This could reduce NOx emissions by 29 percent. It would reduce emissions on SUVs by 68 to 70 percent. There would also be a zero emissions vehicle requirement, which would require car manufacturers to provide ZEVs as a small fraction of their new car fleets. LEV II is the single most significant action New Jersey can take to protect public health from air toxics and ozone.

Dave Foerter, Institute of Clean Air Companies

The Institute is a national association of companies that supply air pollution control and monitoring technology for emission of air pollutants, including emission of NOx, VOCs, HAP, particulate matter and SO2, all of which contribute to the air pollution that affects public health. ICAC businesses that compete with each other offer the full spectrum of technologies available and serve all stationary source emitters.

The ICAC applauds the effort to seek emission reductions from mobile, area and stationary sources. Meaningful market-based programs need the regulatory driver and certainty provided by emission budgets designed to address air quality goals.

Although a lot has been accomplished to reduce ground-level ozone in New Jersey, more can be done. The pool of available and cost-effective control technologies have not been exhausted. In fact, seeking additional NOx reductions from smaller industrial and electric generating facilities is a logical step to achieving state and regional air quality goals.

Reducing NOx as a precursor of ozone has the added benefit of reducing acid rain and improving regional visibility. NOx reduction also limits eutrophication due to nitrogen loading of water bodies. The concept of multi-pollutant strategies that provide multiple benefits should be an argument for a wider range of control options and their cost-effectiveness.

The current recommendations of the OTC for a market-based structure for NOx reduction does not stretch the resources available for pollution control. They are not technology forcing. Control requirements can be deeper and more pervasive.

Control technologies are in themselves more energy efficient. Upgrades in oxidizer systems often result in both reduced energy requirements and greater control efficiencies.

The new NESHAP/MACT rules offer a national framework for VOC and HAP emission control. Frequently at the federal level, reduction of HAP and VOC emissions are not required for already existing sources. New Jersey should encourage many of the existing sources to employ existing technologies that meet the requirements of new sources.

WRITTEN TESTIMONY

Matt Hooper - Electric Power Technologies, Inc.

It would be helpful to see charts with current NOx and VOC emissions allocated by source. An explanation of the cost per ton of removed emissions for each source type would be helpful for understanding the proposed measures for emissions reduction.

I support legislation to financially penalize non-commercial or passenger vehicles that achieve less than 25 miles per gallon (a pollution tax) and the adoption of the California standards for LEV and ZEV automobiles. Since mobile sources are the largest contributor to air pollution in the state, they should not be ignored when emissions are discussed.

B. Sashaw - Concerned Citizen, 15 Elm St., Florham Park

The Clean Air Council should oppose the use of lead shot by hunters in New Jersey because it deteriorates in air/ground and water. I also think that airplanes should have their emissions tested. All modes of transportation should be responsible for clean air, as well as factory smokestacks.

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