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Final Draft Report of THE JOINT SELECT COMMITTEE TO REVIEW IMPLEMENTATION OF THE AUTO EMISSIONS INSPECTION PROGRAM

February 1995

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NOTE

In February of 1995, this report was submitted in final draft form to the Joint Standing Committee on Natural Resources by the Joint Select Committee to Review Implementation of the Auto Emissions Inspection Program. The report had not yet been bound, and the full text of all the appendices was not included in the presentation. This report includes the final draft as submitted by the Select Committee, with minor technical and formatting corrections, and the full set of appendices listed in the final draft report.

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EXECUTIVE SUMMARY

On July 1, 1994, Maine became the first state in the nation to require testing and repair of motor vehicle emissions control systems using a sophisticated new test process, known as "enhanced inspection and maintenance", or "enhanced I & M." The test and repair program is an integral part of Maine's strategy to clean up its air and was expected to reduce ozone-causing pollutants in southern Maine by over 10 tons per summer weekday. But by September 1, 1994, the mandatory testing program had been suspended.

The suspension followed 6 weeks of intensive study by the Joint Select Committee to Review Implementation of the Auto Emissions Inspection Program, a bi-partisan legislative committee appointed by Senate President Dennis Dutremble and House Speaker Dan Gwadosky. The Select Committee recommended that mandatory testing be suspended after finding that:

- Operational problems must be corrected before the public is required to test and repair its vehicles. While program implementation was not a total failure, the number, type and recurrence of problems reported by the public, and a review of contractor and State efforts to address those problems convinced the committee that:
    - Public confidence in the ability of CarTest to safely and accurately perform the test had been undermined; and
    - A slow-down of testing was needed to enable the contractor and the Department of Environmental Protection to address implementation problems;
- A significant and vocal segment of the public does not understand or support the program. Neither the Department of Environmental Protection nor the contractor succeeded in delivering sufficient, accurate information to the public. If the program is to continue, a substantial effort must be made to educate the public about why the program is needed and how it works; and
- Significant policy issues remain to be discussed, including whether enhanced testing is needed in Maine, whether it should be extended statewide, and how to make repairs more effective and more affordable.

This report, the report of the Joint Select Committee to Review Implementation of the Auto Emissions Inspection Program, sets forth the history of the auto emissions testing program, the legal, scientific and policy issues discussed by the Select Committee, the experiences and opinions of the public as reported to the committee, the rationale for the testing program, and issues remaining for the 117th Legislature to address.

History

Maine enacted the Motor Vehicle Emissions Inspection law in 1992, but public awareness of the program was limited until the spring of 1994 when motor vehicle owners were notified of the requirement to have their cars tested. Although the testing program began on July 1, the furor began well before that date. Many Maine citizens expressed confusion, concern and anger over the requirement before the first car had passed through the test stations for mandatory testing. Why were 7 counties singled out to bear the test burden? How will we be able to afford repairs? Why aren't diesel vehicles being tested?

During the first week of testing, public outrage increased as reports circulated that car owners were waiting 2 hours and more for a test, that a computer malfunction caused cars to fail improperly, and that Governor McKernan was pursuing a plan to trade "credits" created by the testing program to industry in the northern part of the state to allow it to increase its emissions.

Legislative Study

To address public concern, Senate President Dennis Dutremble and House Speaker Dan Gwadosky convened a bi-partisan 13-member legislative committee. They charged the committee on July 19th to review implementation of the auto emissions testing program, to review the policy issues that had arisen as a result of the credit trading plan, to gather public experiences and concerns about the program, and to make recommendations on policy and operations to the Legislature.

The study committee and its three subcommittees met for over 80 hours during the months of July and August to receive background briefings on legal, scientific and policy issues, to receive public testimony and to debate options. The Select Committee held over 30 hours of public hearings, meeting in each of the 7 counties subject to the testing requirement to solicit testimony. Over 1,500 people attended those meetings and over 300 of them testified about their experiences and opinions of the testing program.

Public Hearings

The information the Select Committee collected during the often-angry public hearings included many sentiments in support of clean air mixed with criticism of the process by which the program was developed, the policy itself, and its implementation. Common issues raised in the public hearings were:

A. <u>The program is unfair.</u> Southern Mainers should not be singled out for testing; if some Mainers are asked to test and repair vehicles, all Mainers should. If cars are tested, big trucks ought to be tested also.

B. <u>Implementation is poor.</u> CarTest employees damaged cars by forgetting to take the prop rod out before closing the hood or failing to take off the emergency brake during the test. Employees ridiculed people's cars or could not answer simple questions about the test

process. Excessive noise levels gave the appearance that cars were being operated at excessive and harmful speeds. Test results on the same vehicle were inconsistent from day to day or from station to station.

C. Repairs are difficult and costly. People were concerned about the expense of repairs. Some had experience with mechanics who were unsure how to repair vehicles and some received ineffective repairs.

D. The process was not appropriate. The public felt that details of the program should have been worked out in the legislative arena and should have involved the public more fully.

E. The program's not needed. Maine's air seems fine; if there is a problem, it's caused by transport from out of state or by other sources.

Suspension

Following public hearings, the Select Committee met to discuss options, including repealing, suspending or continuing the mandatory testing program. The legal consequences of options were examined, including the possibility that pursuing certain options would embroil the State in a lawsuit for breach of contract, that the federal government would impose sanctions on Maine for violating the Clean Air Act, and that state law set limits on how the program can be changed without legislation.

On August 29, the date they had been asked to report to the Legislative Council, the Select Committee voted unanimously (with one member absent) to suspend mandatory testing. A period of slowdown was necessary to give Systems Control time to improve its operations and to allow the Legislature time to debate significant policy issues presented by the program.

During the suspension, the committee asked Systems Control and the Department of Environmental Protection to make numerous improvements in program operations, including the following:

- Train employees to handle customers better, to explain the test process and results, and to handle vehicles more carefully to avoid damage;
- Improve the process for handling disputes and resolving damage claims and inform customers of test appeal and consumer complaint processes;
- Increase public education efforts, including explaining the test process;
- Provide additional diagnostic information to consumers and technicians, including a second-by-second test report;
- Improve test station comfort; and
- Improve communication with the auto repair industry, including holding an open house for mechanics at the test centers.

Remaining Issues

The committee did not have an opportunity to resolve the issue of the long-term fate of the testing program. Before that decision is made, many policy issues should be explored in greater depth. Those issues include:

- What is Maine's air quality and how much is contributed by out-of-state sources?
- Is there a less expensive testing method that would provide significant air quality benefits?
- Should the program be expanded statewide, or limited to the required urbanized areas (look at cost, loss of air quality benefits)
- What can be done to help people who can't afford needed repairs?
- How can adequate numbers of repair technicians be trained and is the equipment necessary to perform needed repairs of emissions control equipment available to them?
- What should be done with emissions reduction credits created by the test and repair program?
- What are the impacts of changing the program (federal sanctions, continued ozone problems, contract damages)?
- Is the new Congress likely to amend the Clean Air Act to alter Maine's obligation to operate the program?

The Legislature's decision on auto emissions testing is likely to be affected by a more flexible and uncertain legal framework than the framework that faced legislators when the auto emissions testing program was enacted in 1992. The federal Environmental Protection Agency has expressed willingness to approve emissions testing programs that differ in design from Maine's program. Bills have been introduced in Congress to alter the Clean Air Act's requirements. And the Citizens for Sensible Emissions Laws announced that they have filed with the Secretary of State a referendum petition to repeal the auto emissions testing program. If the Secretary of State confirms enough of the 60,000 signatures, the repeal will come before the Legislature. If the Legislature does not repeal the program, voters in Maine will have an opportunity to do so in November of 1995.

I. Introduction

On July 1, 1994, Maine became the first state in the nation to require testing and repair of motor vehicle emissions control systems using a sophisticated new test process, known as the "enhanced inspection and maintenance" program, or "enhanced I & M." The test and repair program is an integral part of Maine's strategy to clean up its air and was expected to reduce ozone-causing pollutants in southern Maine by over 10 tons per summer weekday. But by September 1, 1994, the mandatory testing program had been suspended.

The suspension followed 6 weeks of intensive study by the Joint Select Committee to Review Implementation of the Auto Emissions Inspection Program (the "Select Committee"), a bi-partisan legislative committee appointed by Senate President Dennis Dutremble and House Speaker Dan Gwadosky. The Select Committee recommended that mandatory testing be suspended after finding that:

- Operational problems must be corrected before the public is required to test and repair its vehicles. While program implementation was not a total failure, the number, type and recurrence of problems reported by the public, and a review of contractor and State efforts to address those problems convinced the committee that:
    - Public confidence in the ability of CarTest to safely and accurately perform the test had been undermined; and
    - A slow-down of testing was needed to enable the contractor and the Department of Environmental Protection to address implementation problems;
- A significant and vocal segment of the public does not understand or support the program. Neither the Department of Environmental Protection nor the contractor succeeded in delivering sufficient, accurate information to the public. If the program is to continue, a substantial effort must be made to educate the public about why the program is needed and how it works; and
- Important policy issues remain to be discussed, including whether enhanced testing is needed in Maine, whether it should be extended statewide, and how to make repairs more effective and more affordable.

The law setting up the test and repair program was enacted in Maine in 1992 to meet the requirements of the federal Clean Air Act Amendments of 1990. According to measurements taken in Maine between 1987 and 1989, 9 Maine counties exceeded the federal ozone standard of .12 parts per million. Under the Act, 2 of the counties (Hancock and Waldo) were classified as being in marginal nonattainment, and 7 with more serious problems were classified as being in moderate nonattainment (Androscoggin, Cumberland, York, Knox, Lincoln, Kennebec and Sagadahoc counties).

To address the state's ozone problem, federal law requires Maine to operate an enhanced auto emissions testing program in urbanized areas where ozone is a problem. Urbanized areas consist of the Portland metropolitan

area and the Kittery portion of the Portsmouth-Kittery metropolitan area. The test program was adopted in the entire 7-county moderate ozone nonattainment area because it was considered to be one of the most cost-effective ways to meet another requirement of the Clean Air Act: the requirement that Maine reduce emissions of ozone-causing Volatile Organic Compounds (or VOCs) in the 7-county area by 15% by 1996 (compared to 1990 levels).

Implementing the auto emissions testing program has been more difficult than expected, and created several waves of public criticism and anger.

First, as the public became aware of details of the program, they expressed dismay, anger and cynicism. Those who lived in areas subject to testing wondered why they were required to participate when people in other areas of the State were not. People wondered why a California-based company was chosen to profit from the operation of the test centers rather than a local company or local garages. Many worried that repair costs would be a burden and they would be forced to choose between food and vehicle repairs. One provision of Maine law designed to alleviate the burden on the elderly and low-income -- the low-mileage waiver -- became a source of ire when it became clear that some people who qualified for the waiver would not be granted the waiver because they were not able to demonstrate eligibility.

Second, when the testing program began on July 1st, it was plagued by the inevitable problems of starting up a new program using highly-sophisticated equipment with relatively inexperienced operators. On the first days of testing, newspapers reported waiting lines of 2 hours in some locations. A computer malfunction caused forty-five people to receive the wrong test results, and several were falsely given failure reports. People who qualified for waivers were not allowed to register vehicles because there was no certificate showing the registrar that the person qualified for the waiver. Each of these problems was highlighted in numerous newspaper articles and other media reports.

Third, the Natural Resources Council of Maine announced on July 6th that it had discovered that Governor McKernan planned to trade clean air gains made through the testing program to industry in the Northern part of the State to enable that industry to expand its business and emit additional pollutants to the air. Although the intent of the Council may have been to pressure the governor to delay or abandon the trade, the announcement increased public anger at the testing program itself. This plan bolstered suspicion that the testing program was designed to let industry off the hook for its pollution or to allow industry to meet its clean-up obligations at the expense of the public.

Anger at the program caused a group of Mainers to organize as the "Citizens for Sensible Emissions Laws" or CSEL and to begin circulating petitions calling for repeal of the emissions testing program. If the group collects a sufficient number of signatures, the proposal to repeal the program will be presented to the Legislature in 1995 and if the Legislature does not enact the proposal, it will go to the voters in November of 1995.

In response to public concerns, the Select Committee was appointed to review implementation of the auto testing program, to identify and clarify operational problems, to review policy issues raised by the public including the issue of trading clean air benefits to industry, and to make recommendations to the Legislature.

II. The Select Committee Process

A. Appointment of Committee Members

The Joint Select Committee to Review Implementation of the Auto Emissions Program was composed of 13 members, including representatives from areas subject to the testing requirement and representatives of areas not subject to the test, legislators who had served on the Energy and Natural Resources Committee when the auto emissions law was enacted, and legislators with a commitment to learning but no specialized knowledge of the issue. Senator Richard Carey, who was not a member of the Legislature in 1992 when the law was enacted, and Representative Paul Jacques, who chaired the Energy and Natural Resources Committee in 1992, were named by President Dutremble and Speaker Gwadosky, respectively, to serve as co-chairs of the committee.

The following legislators served as members of the Select Committee:

- Representative Herbert C. Adams (D-Portland)
- Representative Rose H. Aikman (R-Poland)
- Representative Malachi F. Anderson (R-Caribou)
- Senator Georgette Berube (D-Lewiston)
- Senator Richard J. Carey (D-Belgrade)
- Representative Beverly C. Daggett (D-Augusta)
- Representative Richard A. Gould (D-Greenville)
- Representative Paul F. Jacques (D-Waterville)
- Representative Marjorie L. Kilkelly (D- Wiscasset)
- Representative Carol A. Kontos (D-Windham)
- Representative John F. Marsh (R-West Gardiner)
- Representative Lawrence F. Nash (R-Camden)
- Senator Charles E. Summers (R-Scarborough)

B. The charge to the Committee

On July 19, President Dutremble and Speaker Gwadosky convened the first meeting of the Select Committee. The President and Speaker charged the committee to hold public hearings in the 7 counties subject to the test requirement and to investigate the following issues:

1. Coverage of the test requirement
    - Is it fair to require only people in the 7 southern counties to test and repair their vehicles, or should all vehicle owners in the State be required to participate in the program?
    - Should diesel-powered vehicles be subjected to the test?
2. Testing operations
    - Why is the state using a single testing company rather than allowing local garages to perform the test?

- Why does the test give different results for the same vehicle? Is the test reliable?

3. Waivers

   - How can we improve the implementation of the low-mileage waiver to assure that everyone who qualifies can obtain a waiver?

4. Repair Costs

   - How can we alleviate concerns that people can't afford the repairs that will be required?

   - Can the $450 repair waiver serve as a reliable limit rather than being a minimum?

5. Emissions Credit Trading

   - Should we allow credits created by the testing program to be traded to allow business expansion?

   - If so, under what conditions should a trade be allowed, and how can the public be involved in the decision?

6. Other issues raised by the public.

In stressing the importance of the committee's work, Speaker Gwadosky stated "The issue today is critical for the future of this State and for the people who live here and work here. Clean air itself is at stake. The affordability and fairness of the program is at stake, as is the balance of reducing pollution from all sources."

The President and Speaker asked the committee to seek solutions for the problems they identify and to advise the Legislature on changes needed to make the program fair, reasonable and responsible. They also asked Governor McKernan to withdraw his request for the use of auto emissions testing credits to allow industry expansion until the public has had a chance to debate the policy.

C. Committee Process

The committee met for over 80 hours during the months of July and August. The first task was to obtain background briefings on the legal, policy and scientific issues to be addressed. Agendas of the meetings contained in Appendix B set out the list of persons who made presentations.

After hearing presentations, members identified issues that needed further exploration, and formed three subcommittees to study those issues. Subcommittees met once each before the public hearing process began, and at least once following the public hearings.

During the weeks of August 8th and 15th, the committee held public hearings in each of the 7 counties subject to the testing requirement, to gather testimony of people who had been through the test process and to hear the opinions of others who had not.

The committee met with Systems Control President Robert Miller at the State House on August 16th, to examine his management of the implementation problems and to convey the committee's displeasure with those problems.

Following the public hearings, the committee returned to the State House to discuss what it heard from the public, to identify possible options, to explore the implications of each option, and finally to recommend that the mandatory testing program be suspended.

In addition to committee members, the following interested parties regularly attended meetings:

- Debrah Richard and Deborah Garrett, Acting Commissioners, Maine Department of Environmental Protection (DEP);
- Dennis Keschl, Director of the DEP Bureau of Air Quality Control;
- Ron Severance, John Chandler, and Jim Brooks, of the DEP Bureau of Air Quality Control;
- Robert Judge, EPA Region I, Boston;
- Scott Bauman, spokesperson for Systems Control, Inc.;
- Representatives of Maine industry, including the Maine Chamber of Commerce and Industry, the Maine Alliance, Maine Petroleum Association, the Maine Oil Dealers Association, and the Paper Industry Information Office;
- Representatives of auto dealers and auto repair organizations, including the Maine Automobile Dealers Association, the Automotive Service Association of Maine, and the Maine Automotive Coalition; and
- Representatives of organizations focussed on environmental and health concerns, including the Natural Resources Council of Maine and the American Lung Association.

D. The Report

Sections III through X of the report summarize the background information received by the committee prior to its public hearings. Section XI includes public testimony regarding test experiences and policy opinions. Sections XII and XIII discuss the committee's deliberation of options for alteration of the testing program, and its decision to recommend the program's suspension. Section XIV sets forth a list of issues that the 117th Legislature is asked to examine. Section XV reports comments of individual committee members.

A glossary of terms used in the report and in discussions of air quality regulation is included at the end of the report, as is a bibliography of materials made available to the committee. Selected committee materials are included as Appendices, and the availability of other materials is listed in the bibliography.

III. Maine's ozone problem

A. What is ozone, and why is it unhealthy?

Ozone (O_3) is a highly reactive form of oxygen. It is found both at ground level ("ground-level ozone"), where it is a health hazard, and in the upper atmosphere ("stratospheric ozone"), where it protects human health by absorbing harmful ultraviolet rays from the sun.

The auto emissions testing program is designed to control ground-level ozone. At ground level, ozone is a lung irritant that can cause shortness of breath, chest pain, throat irritation, coughing and wheezing. Repeated or long-term exposure can slow the development of children's lungs and increase the aging of adult lungs. Children, the elderly, asthmatics and persons with lung disease have the greatest difficulty with ozone, but everyone is affected.[1] According to the Maine chapter of the American Lung Association, over 100,000 Maine citizens have lung disease, including 20,000 children.

B. How is ozone formed?

Ozone is not released directly into the air by cars or industrial smokestacks. It is formed when hydrocarbon gasses (also called volatile organic compounds, or VOC's) and nitrogen oxide gasses (NOx) combine through a chemical reaction spurred on by the sun. Ozone is a problem in Maine in the summertime, when temperatures are high and the sun is strong.

VOCs and NOx are called ozone precursors because their presence precedes the formation of ozone. Ozone is controlled by controlling emissions of its precursors.

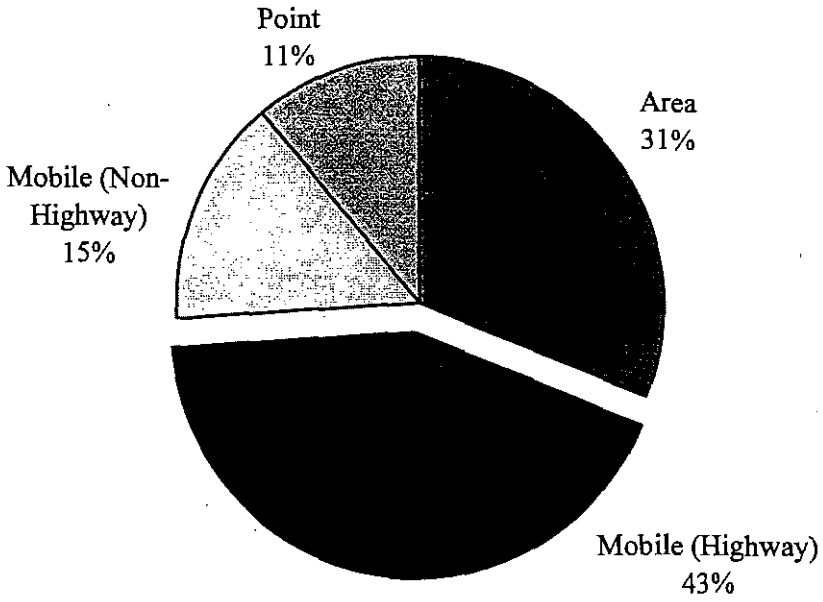
VOCs are released into the air in automobile exhaust and industrial emissions, as fumes released from gasoline during storage and transfer, and as evaporation from various solvents, paints, and degreasing agents used in activities such as drycleaning, engine repair, commercial and home painting and furniture stripping and refinishing. These sources are known as "anthropogenic" or man-made sources. VOCs are also released into the atmosphere by plants and trees (these are "biogenic" or naturally-occurring sources).

Nitrogen oxides are released by combustion of fossil fuels by power plants, cars, and large commercial boilers.

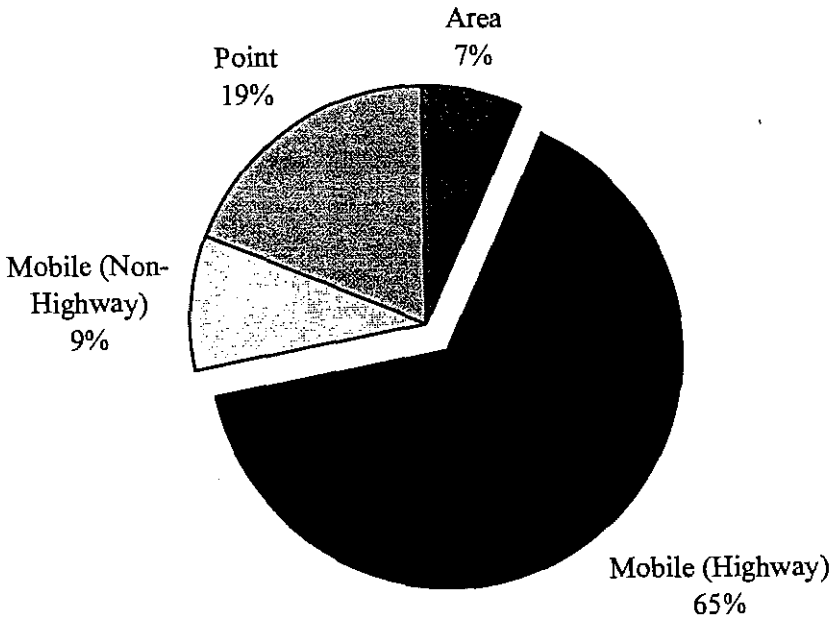
Motor vehicles are significant contributors to the formation of ozone, accounting for 43% of the man-made VOCs in Maine's moderate ozone nonattainment areas and 65% of the nitrogen oxides released in those areas. On a typical summer weekday in southern Maine, highway motor vehicles emit 65 tons of hydrocarbons and 89 tons of nitrogen oxides.[2]

Figure 1. VOC and NOX Emissions in Maine's Moderate Nonattainment Areas, By Source

A. VOC SOURCES



B. NOx SOURCES



Point Sources include factories, wastewater treatment plants, landfills; Area Sources include gasoline stations and distribution facilities, drycleaners and paints shops, bakeries, incinerators, forest fires. Non-highway mobile sources include airplanes, lawnmowers, snowmobiles and boats.

Source of data: Maine DEP 1990 Base Year Inventory (July 1994)

C. How was it determined that Maine has an ozone problem?

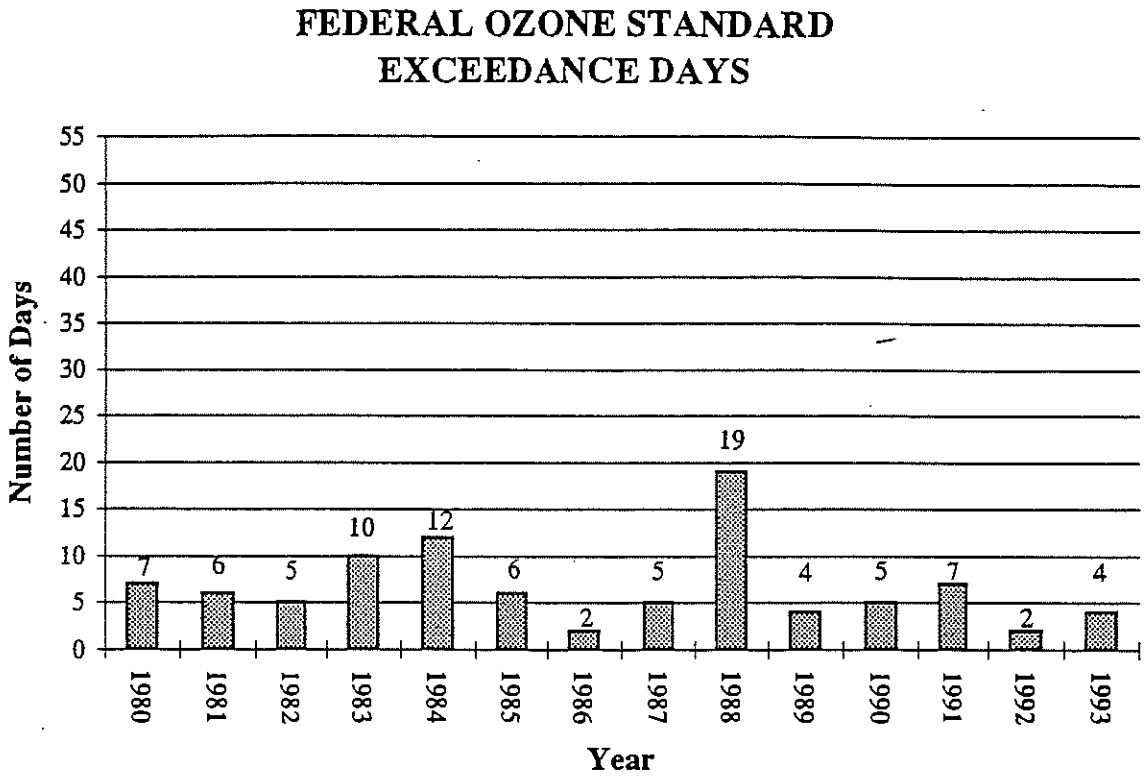
The Environmental Protection Agency has determined that human health is affected when the ozone concentration in the air we breathe exceeds .12 parts per million. The federal Clean Air Act requires all areas of the country that exceeded that health-based ozone standard over a three-year period to take steps to clean up their ozone pollution. The steps that are required in an area depend on the severity of the pollution in that location.

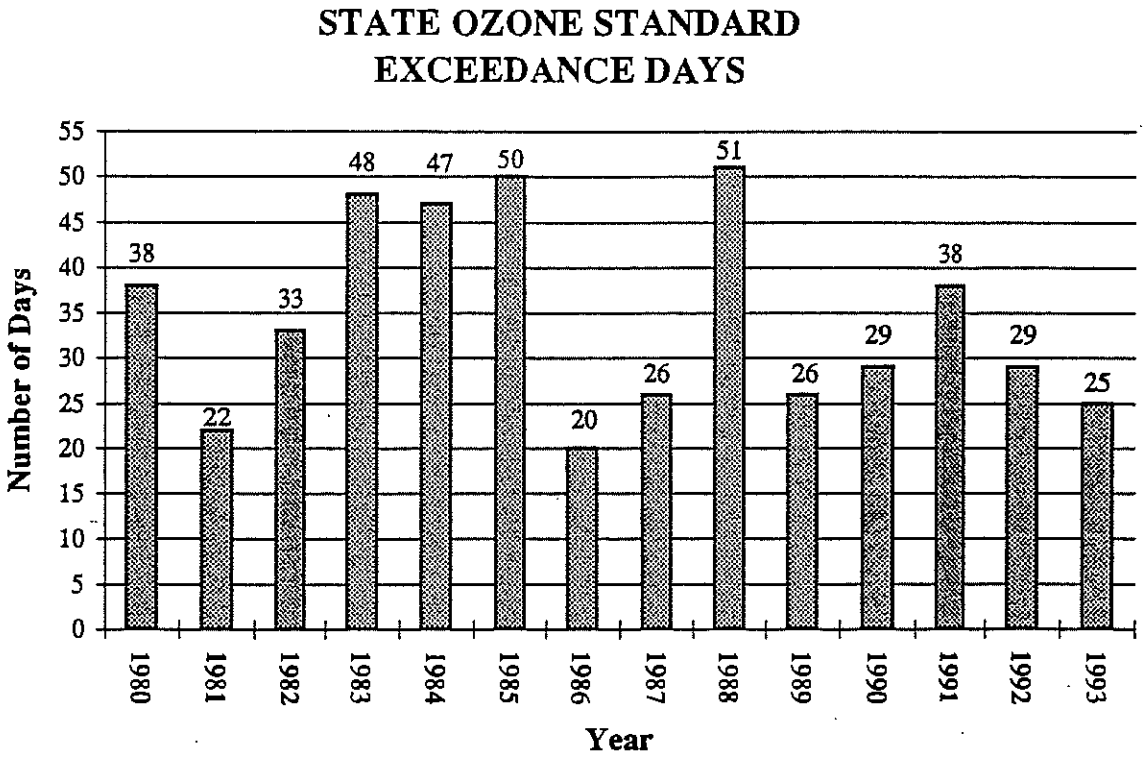
Based on ozone levels measured at air monitoring stations in Maine between 1987 and 1989, EPA classified 2 Maine counties (Hancock and Waldo) as being in "marginal nonattainment" of the federal ozone standard and 7 counties as being in "moderate nonattainment" of the standard (Androscoggin, Cumberland, Kennebec, Knox, Lincoln, Sagadahoc and York counties).[3]

Members of the public and some legislators question whether Maine has unhealthy air. Ozone levels in recent years have not exceeded the federal standard very often or for very long. Maine counties were classified as nonattainment areas based on information from the summer of 1988, which was one of the worst summers for ozone levels in many years, and is not typical of our air conditions.

DEP Acting Commissioner Deb Richard told the committee that Maine does have an ozone problem. Monitoring stations throughout the State have registered excessive ozone levels, and some have been quite serious. Isle au Haut, part of Acadia National Park, measured an ozone level of .202 parts per million in 1988, almost twice the federal standard for healthy air. It is also unclear whether the federal ozone standard of .12 parts per million adequately protects public health. Maine law defines unhealthy air as air that exceeds .08 parts per million of ozone.[4] Prior to 1979, the federal standard was also .08 parts per million and one DEP representative commented that it is not clear that science supported the increase in allowable ozone levels.[5] Several environmental and health groups have sued the EPA to review the current .12 standard and determine whether it sufficiently protects the public health and welfare.[6] That determination is expected by 1997.

Figure 2. Federal and State Ozone Exceedance Days, 1980-1993





Source of Data: Maine DEP 1993 Annual Air Quality Report

D. Is most of our ozone problem caused by drift from other states?

Air currents often bring ozone and ozone-precursors into Maine from states to our south and southwest. Depending on the direction of the air current, Maine may receive ozone or ozone precursors from Boston's traffic jams or from industry in New York State or Canada. DEP does not have exact figures on what percent of ozone and precursors are transported into Maine, but the department has said that a majority of our ozone pollution results from transport. In addition, representatives of DEP and the federal Environmental Protection Agency have said that, as a result of transported pollution, Maine air may exceed the federal ozone standard under some weather conditions even if no Maine cars were contributing emissions.[7]

Some people argue that, since most of our pollution comes from out of state, Maine people shouldn't be required to test and repair their cars. Acting DEP Commissioner Deb Richard told the committee that Maine cars do contribute to the pollution problem, so it is not unreasonable to ask car owners to help clean it up. And according to Cliff Michaelson, DEP Meteorologist, it is arguable that Maine pollution under some weather conditions drifts to other states and contributes to pollution problems there.[8]

E. What about tourists' cars?

Many of the cars on the road in Maine, especially during the summer months when ozone is a problem, are the cars of tourists visiting Maine from Massachusetts, Connecticut and New York. Maine's testing program will not apply to those cars, but most of them are required by federal law to undergo the same test as Mainers in their home states, beginning in 1995. All cars registered in Connecticut, Massachusetts, New Jersey, and Rhode Island are subject to testing, as are cars in urbanized areas of New York, Pennsylvania and New Hampshire. Many of those states, in fact, have been testing and repairing motor vehicle emission control equipment since the late 1960's and early 1970's. Although the test they have been undergoing is less rigorous than the enhanced I & M test that they will be required to undergo in 1995, it has provided some level of protection against the worst polluters.

IV. Testing Program Design

A. Why only 7-county testing?

Of all questions raised by the public, perhaps the most frequently asked was "why were the car owners of the 7-county area singled out for the testing mandate?" Many people felt that failure to subject all vehicle owners in the State to the test was discriminatory. All cars emit the same pollution, so if we have to test and repair our cars, why shouldn't everyone?

The entire state was not included in the testing program for three reasons. First, the 9 Maine counties exempted from the test requirement have air quality that meets the federal ozone standard or exceeds it by only a marginal amount. Although there would be some benefit to testing and repairing all vehicles, the benefit in areas with cleaner air does not justify the cost. Second, those counties are not required by federal law to reduce their emissions of volatile organic compounds by 15% as are the 7 counties subject to testing.

Third, because the other counties are less densely populated, many more stations would be needed to provide the same level of convenience as is provided in the current program. Under the current program, over 85% of the population subject to testing lives within an average of 15 miles of a test station.[9] According to DEP, if the cost of building additional test centers for the other 9 counties was distributed evenly among all vehicles being tested, the test fee would increase from the current fee of $24 to $50 or $75.

B. Why extend testing to 7 counties when testing is only required in 3 metropolitan areas?

The federal Clean Air Act requires Mainers to test and repair motor vehicles in 3 metropolitan areas -- the Portland, Kittery, and Lewiston-Auburn areas. If Maine had not been included by Congress in the Ozone Transport Region, we could have complied with the minimum testing requirement in those areas by operating basic testing programs. In a basic test program, vehicles can be tested in a local garage while idling, rather than being tested at a centralized station under conditions simulating actual driving conditions. Because Congress included Maine in the Ozone Transport Region, the testing in the larger metropolitan areas (Portland and Kittery) must be "enhanced" testing. Lewiston-Auburn could have complied with the minimal requirements of the law by operating a basic testing program. In total, 26 towns are required to have enhanced testing, and 7 towns are required to have basic testing.

Figure 3.

Maine Ozone Attainment Status, 1994

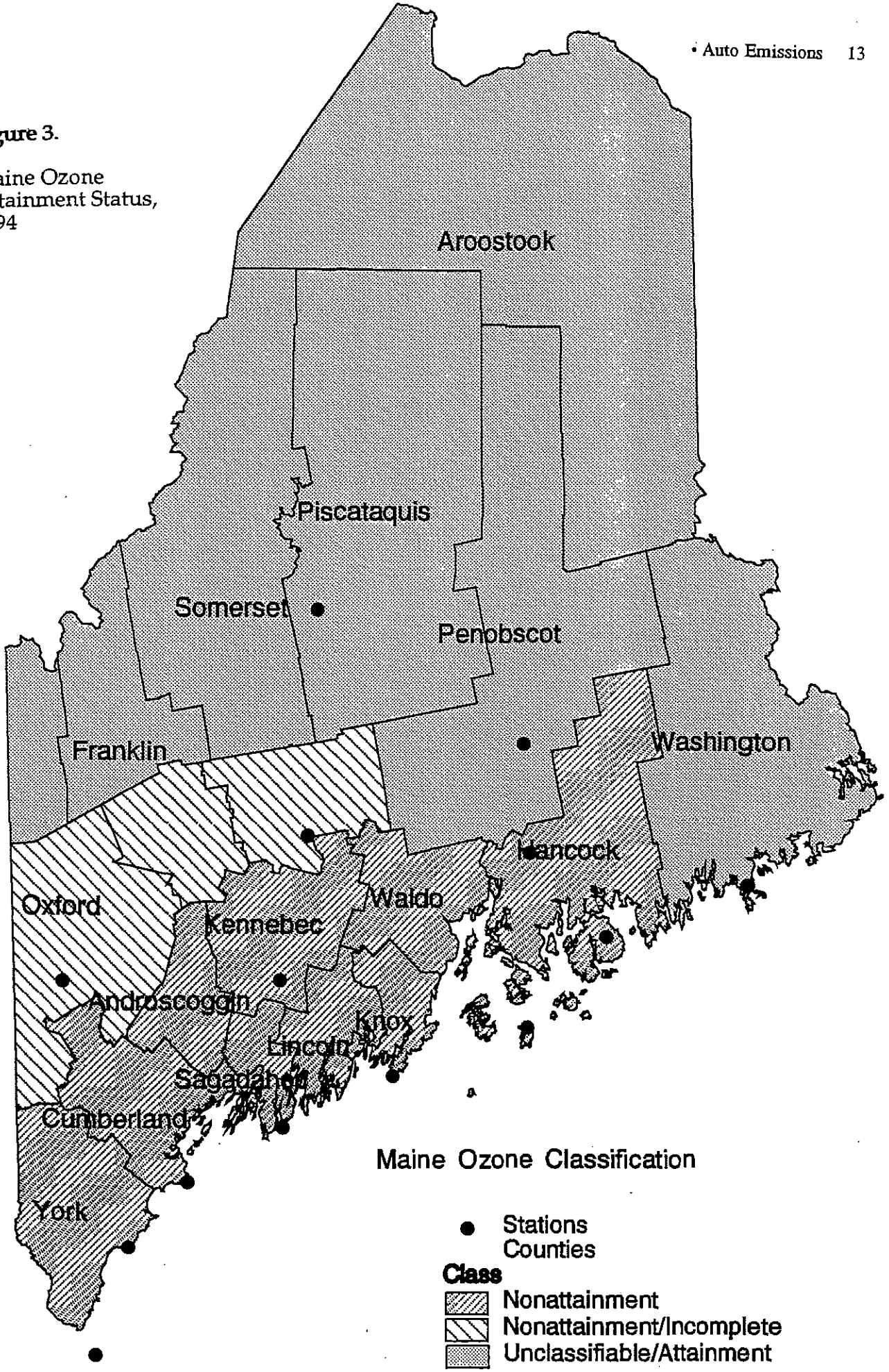


Table 1. Maine Towns Required to Operate Motor Vehicle Test Programs

Enhanced I & M

Berwick	Hollis	South Berwick
Buxton	Kittery	South Portland
Cape Elizabeth	North Berwick	Standish
Cumberland	North Yarmouth	Wells
Eliot	Ogunquit	Westbrook
Falmouth	Old Orchard Beach	Windham
Freeport	Portland	Yarmouth
Gorham	Raymond	York
Gray	Scarborough	

Basic I & M

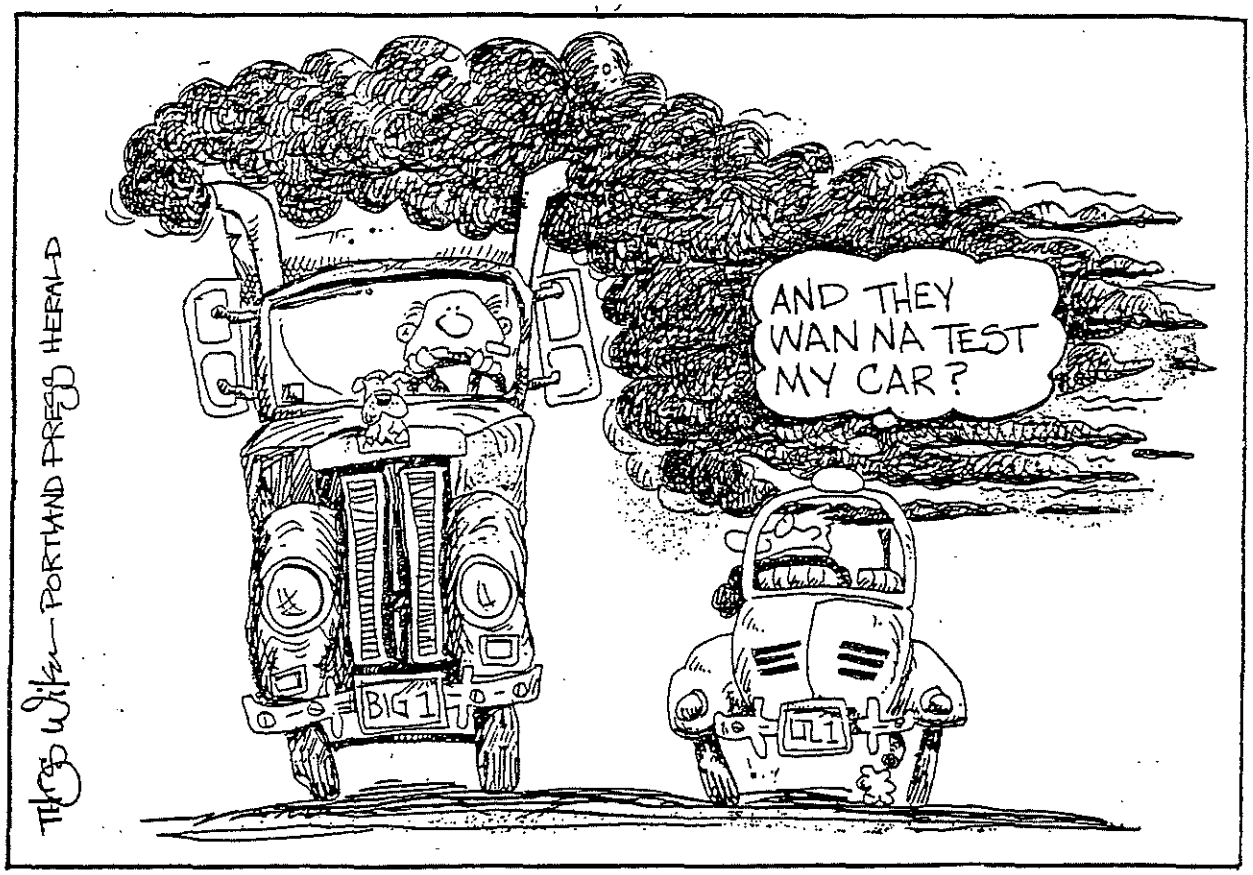
Lewiston	Mechanic Falls
Auburn	Poland
Greene	Sabattus
Lisbon	

Although only these 33 towns are required to have a testing program, the DEP proposed in 1992 and the Legislature approved imposition of the enhanced I & M test in the entire 7-county area in order to meet a separate requirement of federal law: the requirement that VOC emissions in the 7-county area be reduced by 15% by November 1996. Enhanced vehicle testing was viewed as the most cost-effective way to achieve those reductions. The Clean Air Act requires the 15% reduction, and allows states to use any combination of programs to reach that goal. The 15% reduction, however, must be in addition to reductions achieved by required programs, so most emission reductions from testing and repairs in the 33 towns do not count toward the 15% reduction. Only reductions achieved from the areas where the program is not required, or from aspects of the program that are more stringent than federal law requires count toward the 15%.

The motor vehicle test program was estimated to reduce 10 pounds of VOCs per summer weekday, approximately a third of the required reduction of 30 pounds per summer weekday. No other control program is seen as being as effective. The cost is estimated at $500 per ton, compared to up to $5,000 per ton for additional industry controls.

C. Why aren't diesel trucks subject to the test?

The black smoke billowing from the smokestacks of diesel trucks is a visible sign to car owners that their cars are not the only polluting vehicles on the road. Many members of the public feel they are being singled out to pay costs that are not shared by what they see as more serious polluters.



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Diesel trucks are not subject to enhanced testing because, despite the visibility of their exhaust, they do not contribute significantly to the problem that the enhanced I & M program is designed to address. Gasoline burning engines emit NOx and VOCs, which combine to form ozone. Ozone is Maine's primary air pollution problem, and federal law requires the state to address that problem immediately.

Diesel-burning engines, on the other hand, emit very small amounts of VOCs compared to gasoline-powered vehicles.[10] The black smoke that is visible is small particles of soot and dust, referred to as "particulate matter." Although the particulates contribute to health problems, they do not cause ozone, which is the pollutant that the enhanced I & M program is designed to address.

In addition, Maine test stations are not built to withstand the weight of large diesel trucks, since Maine law only calls for testing vehicles up to 10,000 pounds. The IM240 equipment used in Maine's test stations cannot be used to test diesel emissions.[11] Testing for particulate emissions would be done through opacity testing, not by computerized emissions analyzers like those used in the IM240 equipment.

The federal government has promised to regulate diesel trucks and believes that federal regulation is more effective than regulation by individual states. Since many trucks travel interstate, testing trucks registered in Maine would not capture a large portion of the trucks operating on our roads. The federal government is addressing diesel truck pollution by requiring new trucks to meet tougher emission standards, which manufacturers will probably meet by adding catalytic converters to their vehicles.[12] The Clean Air Act also required diesels beginning in October of 1993 to use fuel with a lower sulfur level. Lower-sulfur fuel burns more efficiently, and results in fewer particulate emissions.

A few states, Arizona, California and Colorado, test the opacity of diesel vehicles, using road-side testing or as part of a centralized test system. Two Northeastern states, Maryland and New Jersey, have operated pilot testing programs, and two others planned to include diesel vehicles in their enhanced I & M programs (New York and Ohio).[13]

D. Are there less costly alternative methods of identifying polluting vehicles?

Committee members reported having heard that on-road testing with a laser device would be less expensive, more convenient for consumers and nearly as effective in reducing air pollution. The device, referred to as a remote sensing device, can be set up alongside any single lane road. When a vehicle passes by, the device's emitter shoots a laser beam across the road at car exhaust level. A reflector on the other side of the road shoots the beam back to a detector located alongside the emitter. The detector measures the amount of gasses in the air as the vehicle passes by.[14] That information, along with an image of the vehicle and its license plate number, are stored by a computer. The State can then send notices to vehicles with excessive emissions, asking them to report to a testing center for a comprehensive test.

Proponents of on-road testing say that it makes more sense to have only vehicles that are identified as potential polluters submit to an enhanced I & M test rather than requiring all cars, including the 80% that are not polluting, to be brought to a test center.

Federal law requires states to use some type of on-road testing to verify compliance with the enhanced test. However, EPA has not approved the use of laser remote sensing as a substitute for the enhanced I & M test. According to EPA, the laser remote sensing device does not measure NOx emissions, on-road testing of an accelerating vehicle may give an inaccurate picture of the condition of the emissions control equipment, it cannot detect evaporative emissions such as leaks in the gas tank or distribution lines, and is limited by weather conditions. EPA is, however, continuing to study the usefulness of remote testing.[15]

V. Test Implementation: the Test and the Contractor

A. Who gets the $24 fee from each test?

The contract between Systems Control and the Department of Environmental Protection provides that approximately $2 of the $24 fee goes to the State, and the remainder, up to $22 per test, is retained by Systems Control.

The State's share of the fee pays for personnel and equipment at the DEP and the Bureau of Motor Vehicles. Those agencies assure that the test program is operated in compliance with the contract, and with federal law and regulations. DEP reviews public complaints, verifies equipment quality control, and monitors contractor performance by, for example, looking at test results and waiting times. The Bureau of Motor Vehicles notifies car owners of their testing obligations, verifies compliance with the test requirement and suspends the license of persons who do not comply.

The exact amount of the fee retained by Systems Control varies depending on the number of vehicles that qualify for a low-mileage exemption. When Systems Control bid on the contract, DEP estimated that a certain test volume would be available to provide revenue under the contract. Systems Control bid for a test fee of $20 based on that volume, but when the Legislature later enacted the low-mileage exemption, the volume of testable cars decreased. The contract required the state to make an "equitable adjustment" to the contract if it changed the scope of the work required,[16] so the DEP provided in the contract that Systems Control would retain an additional penny of all fees for each 32 cars that are not tested due to low mileage.[17]

B. How does the test work?

Cars emit air pollutants through exhaust of gasses that are left following engine combustion and through leaks of unburned gasoline vapors from the car's gas distribution lines. The enhanced I & M test evaluates both types of emissions.

The first phase of the test examines the vehicle for leakage of unburned gasoline through a purge test and a pressure test.

The purge test checks the functioning of the purge canister, which takes gasoline vapor from the gas tank and the carburetor and injects it into the engine to be burned. If the system does not work as designed, vapors can accumulate in the canister. When the canister becomes saturated, gasoline vapors are released into the air, wasting gasoline and releasing hydrocarbons and other pollutants into the air. To test this system, a CarTest employee must connect test hoses to measure the flow rate between the canister and the engine. The flow rate must be at least 1 liter. A vehicle that fails the purge test may have a faulty purge canister, blocked or leaking lines, or malfunctioning valves.

The pressure test evaluates the integrity of the fuel system between the gas cap and the purge canister. The fuel system is

pressurized to .5 pounds per square inch (psi). The fuel system must hold the pressure of at least .25 psi for 2 minutes and pressure must be released when the gas cap is removed. Failure of the pressure test indicates a leak in either the fuel or vapor lines or the gasoline tanks. Leaks allow release of gasoline vapors into the air.

After completion of the purge and pressure tests, the vehicle is placed on a set of rollers on a treadmill-like device, called a dynamometer. A hose is attached to the tailpipe of the vehicle to capture the emissions, and the level of NOx, hydrocarbons (VOCs) and carbon monoxide in the emissions is measured continuously over 240 seconds by a computerized analyzer. An employee of CarTest runs the car and accelerates and decelerates the engine by following a computer "trace" that tells the employee what speed to operate the vehicle at each stage of the 240 seconds of the test. The highest speed is 56.7 mph.[18] When the 240 seconds is over, a computer prints out the test results, showing the acceptable level of each type of emissions and the vehicle's measured levels. The report also shows the mileage the vehicle gets from a gallon of gas in its present operating condition.

C. Why do results vary from test to test on the same vehicle?

The Maine Sunday Telegram in late July sent a vehicle to each of the 7 test centers and reported that test results differed in each center and that the standard used to determine whether the vehicle passed differed as well.[19] EPA and DEP officials explained the difference in results by saying that a vehicle will give different results depending on how long the vehicle idles before the test (more idling, more emissions), how warm the engine is before the test (cold engine, worse emissions), and other operational factors. The differences in standards printed on the test result from the difference in length of the test. If a vehicle is running very cleanly in the early part of the test, the equipment can stop the test after as few as 30 seconds (instead of the full 240 seconds) and pass the vehicle. The emission levels allowed during this "fast-pass" test are lower than the levels allowed in the full 240 seconds, so the standard printed on the test report is different from the standard printed on a full 240-second test. But the fast-pass standards are never used to fail a vehicle; only clean-running cars that can pass the tougher standards are judged by them.

DEP and Systems Control assured the committee that the variability of test results are not the result of equipment malfunction. The equipment is working as it was designed to work, they explained, and frequent calibration of the machinery assures that measurements are accurate. During an audit of the Maine program in early August, EPA found that the test equipment was functioning properly and that, with minor exceptions, CarTest personnel were properly performing the tests.[20]

D. How was Systems Control chosen to be the contractor?

As required by Maine law[21], the Department of Environmental Protection followed contract award procedures established by the Bureau of Purchases, Department of Administrative and Financial Services. Those procedures required DEP to issue a Request for Proposals (RFP), which was published in legal notices in the Kennebec Journal. Potential bidders met with the DEP for a proposers conference, to clarify the RFP. A final amended RFP was issued in February of 1994.

Four companies responded with bids: Envirotest Systems Corp., a Maryland company (operating as Hamilton Test Systems); Marta Technologies of Tennessee; Systems Control, Inc., a California company; and ESP (Environmental Systems Products) of Connecticut. All had experience operating motor vehicle emissions testing programs in other states. No Maine company submitted a bid.

A proposal review committee was formed including representatives of the Department of Environmental Protection, the Office of the Attorney General, the Bureau of Motor Vehicles, the Board of Environmental Protection, the Natural Resources Council of Maine and NESCAUM, a regional group of air quality administrators. Evaluation of the bidders was based on the following criteria, set forth in the RFP:

A. Bidder Qualifications (specific related ability, financial depth and capability, probability of successful performance);

B. Inspection Network design (convenience/accessibility, design rationale);

C. Inspection Facilities (facility design including emission inspection and expansion capability, site design and acquisition plan, public interface);

D. Hardware and Software systems (data/computer systems, Test equipment/automation, system management/interfaces);

E. Operating Procedures (operating procedures; interface with the State);

F. Program Organization and Management (personnel and team structure, project plan/schedule, Training/staff plan, economic impact to the State); and

G. Bid price.

Proposal summaries and score sheets are included in Appendix E.

According to Ron Severance of DEP, a member of the proposal review committee, Systems Control was awarded the contract because they had experience with centralized testing systems, offered attractive hours of operation, a significant budget for public education, and good facility design (including a separate bay to perform waiver evaluations, which one competitor had proposed performing outdoors, a proposal considered unacceptable given Maine's winter conditions). Systems Control did not propose the lowest test fee, but the contract review committee felt that the program offered by Systems Control overall was superior to that offered by the lowest bidder.

E. Are Systems Control employees qualified, and what benefits do they receive?

Committee members expressed dismay when they learned that the lane inspectors employed by Systems Control were primarily part-time, minimum wage workers who receive little if any employment benefits. In his August 16th meeting with the Select Committee, Systems Control President Robert Miller responded that labor costs are a significant cost to them, and in order to offer a competitive test fee, they are required to control wages and benefits. If all bidders had been required to offer a certain pay rate, they would have been happy to do so. In addition, Miller said, many of their employees prefer the flexibility of part-time employment.

In response to a committee request, Systems Control Director of Marketing Jack Marino reported that there had been a 35% turnover of lane inspectors between July 1st and August 17th. He attributed the high turnover to controversy over the program.

Employees are not required to have specific types of experience before they are hired, but all employees undergo training when they are hired.

F. Has Systems Control breached the contract by committing numerous minor violations of the contract?

The contract between Systems Control Inc and the DEP states that Systems Control is in breach of the contract if the effective operation of the testing program is impaired by the "cumulative effect of uncured repeated minor failures" by the contractor.[22] Committee members questioned whether the implementation problems cited by the public added up to a series of uncured repeated minor failures.

Before a minor failure is considered in evaluating performance under the contract, the Department must submit written notice of the failure to the contractor, and the contractor has 30 days to cure the problem. If the contractor cures the failure, it is not considered in evaluating cumulative effect. Committee members asked DEP to show them written reports of the complaints that had been submitted to Systems Control, but no reports were produced for the committee.

VI. Vehicle Repairs

A. If a vehicle fails the test, how will the owner know what repairs are needed?

When a test is complete, the vehicle owner receives a report of the results indicating the amount of hydrocarbons, carbon monoxide and NOx emitted during the test and the standard that must be met in order to pass the test. If a vehicle fails any part of the test, the owner also receives a brochure listing probable causes of failure.

Committee members asked DEP why detailed information is not provided to pinpoint the exact cause of failure. According to DEP, diagnostic equipment does exist, but it would be expensive and time-consuming to diagnose each vehicle that fails. Bidders were not asked to provide detailed diagnostic information. Repair technicians told the committee that the best way to get effective repairs is to allow the mechanic to hook up the vehicle to diagnostic equipment at the repair station.

B. Do auto repair technicians know how to repair vehicles?

Many of the repairs needed to improve emissions control are repairs that mechanics are accustomed to performing, such as changing oil or spark plugs, replacing catalytic converters or adjusting belts and carburetors. As required by federal law, DEP has contracted with a private company to operate a diagnostic hotline to assist mechanics. Mechanics must pay a fee based on the number of minutes they use the service, but they would be able to get help diagnosing and fixing emission control failures.

One way that the hot-line can help mechanics is by looking at the emission measurements for each second of the 240-second test. These readings provide valuable information for diagnosing problems. For example, if a vehicle registers high hydrocarbon levels during acceleration, that may indicate a different problem from a high hydrocarbon reading during deceleration or steady speed. Committee members questioned whether the second-by-second information could be made available to all repair technicians, without having to call the hotline. DEP said they would examine whether that could be done.

The Department of Environmental Protection has also contracted with the Central Maine Technical College in Auburn to provide classes in emissions control repair for auto repair technicians.

Repair technicians say that they have a difficult time assuring that their repairs are effective because they do not have the same test equipment as the test centers, which costs over $120,000. They can purchase equipment that measures the same gasses as the IM240, but it either does not test vehicles during acceleration and deceleration or it measures the emissions in parts per million, not grams per mile as is required by the IM240 test.

C. What happens if a vehicle owner can't afford repairs?

Vehicle owners who are receiving Medicaid, Food Stamps, low-income heating assistance, family crisis assistance or Maine Health Program coverage may apply for extra time to complete necessary repairs. Under this low-income repair extension program, the Department of Environmental Protection can grant a vehicle owner up to one year to complete repairs.

Many committee members were concerned about the difficulty that low-income Mainers will have in repairing their vehicles. Finding $450, even over the period of a year, may require a vehicle owner to delay or cancel essential purchases. Since the state does not have an extensive mass transportation system, it is necessary to have a motor vehicle. Committee members expressed interest in finding other ways to assist people with repair costs. Some suggested that if credits created by the testing program were sold to industry, the money could be used to finance repairs.

D. What is the $450 repair waiver?

The Clean Air Act does not require vehicle owners to spend unlimited amounts of money repairing their vehicles. If a person spends at least $450 trying to repair a vehicle and the vehicle still fails the test, the owner will receive a waiver. The waiver allows a vehicle to be registered for two years even though it does not meet the test standards.

This provision of the Act has been referred to as the "$450 limit" on repairs, which committee members described as being misleading. In order to spend <u>at least</u> $450 on repairs relevant to the cause of the failure, a person may actually be required to spend much more than $450. For example, if the only thing a vehicle needs is a valve job and that costs $900, the owner would be required to spend $900, not $450 before qualifying for the waiver. In addition, referring to $450 is inaccurate because the $450 must be adjusted each year to reflect changes in the Consumer Price Index.[23] The actual repair waiver amount for 1995 is closer to $500 than to $450.

Committee members were very concerned that the public does not understand that the waiver does not guarantee that $450 is the most they will have to spend on repairs. When car owners find out the reality, they will feel that they've been deceived and will be even more concerned about the affordability of repairs.

E. Who will help consumers get appropriate repairs?

DEP has established a voluntary certification program, which will tell consumers which repair technicians have passed a test demonstrating competence in repair of auto emissions control systems. When a vehicle fails the emissions test, the owner will be given a list of certified repair technicians. Central Maine

Technical College (CMTC) professor Carl Hinkley stressed that lack of certification does not mean that a mechanic is unable to repair vehicles, but certification provides some assurance for a vehicle owner who is unsure of a mechanic's knowledge.

Unfortunately, DEP and CMTC reported that very few mechanics have taken the certification test. CMTC offered the certification test in 7 locations between May 1 and June 15, and although there were 1200 spaces available, only 484 mechanics took the test. Of those, 164 passed.

To aid consumers further, CarTest will collect information on repair experiences for all vehicles that fail the test and return for a retest. This "auto technician report card" will show vehicle owners which repair facilities have been especially successful in repairing vehicles. It will also provide information for mechanics on the most effective types of repairs for each type of vehicle and type of failure.

VII. Motor Vehicle Testing in Other States

A. Is Maine the only state requiring this test?

Maine is the first state to require enhanced I & M testing, but federal law requires 24 other states and the District of Columbia to operate the test beginning January 1, 1995.

Table 2. States Required to Operate Enhanced I & M

Arizona
California
Colorado
Connecticut
Delaware
District of Columbia
Georgia
Illinois
Indiana
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Missouri
Nevada
New Hampshire
New Jersey
New York
Ohio
Pennsylvania
Rhode Island
Texas
Vermont
Virginia
Wisconsin

All of the New England States, New York, New Jersey and Pennsylvania are among the states that are required to operate the enhanced program in all or part of the state.

During the summer study, committee members received news that some states were resisting the federal testing requirement. Vermont has refused to create a testing program as required in the Burlington area. California and New Jersey balked at operating the program as designed by EPA. EPA threatened to sanction California and New Jersey, but ended up agreeing to a modified form of the testing program instead, enabling those states to continue using some of their local garages to do the test. Vermont is still under a sanction threat, but says that it is unconcerned. Highway sanctions cannot be applied to Vermont because the state is in attainment of the ozone standard, and the increased offset for new business does not concern the state because it is not expecting major industrial growth.

VIII. Federal sanctions

A. What would the penalty be if Maine did not operate the test?

Federal law provides several types of sanctions for states that fail to adopt or implement programs required under the Clean Air Act.[24] Federal highway funds may be withheld, industrial expansion may be severely limited, and the federal government may step in and operate air pollution control programs in the State.

Jane Lincoln, Deputy Commissioner of the Maine Department of Transportation estimated that Maine could lose from $35 to $100 million of highway funds annually, depending on the timing and the geographic applicability of the sanction. The exact amount is uncertain also because federal law allows states to keep money for safety-related and pollution-reduction projects, and it is not entirely clear which projects fall into those categories. (Highway sanctions are discussed more fully in Section XII (A) of the report.)

Under the Clean Air Act, Maine industry and businesses are required to offset each new additional unit of emissions of VOC and NOx with 1.15 units of reduced emissions. Federal sanctions would increase that offset requirement to 2.0 units of reduction for each additional unit of new emissions.

Finally, the Environmental Protection Agency is authorized to enforce provisions of the Clean Air Act if a state refuses to do so, and is required to promulgate a federal implementation plan for states that fail to submit approved plans to bring their ozone levels under control.[25]

B. Are EPA sanction threats real?

Some legislators have questioned whether EPA would actually impose the sanctions allowed or required by the Clean Air Act. Robert Judge of the Region I EPA office in Boston told the committee that EPA is serious about sanctions. States have received sanctions in previous years for failing to adopt auto emissions testing programs required in 1977. EPA also initiated formal action to begin imposing sanctions on California, Indiana and Illinois for refusal to adopt enhanced I & M programs.[26] In those cases, the states eventually complied with the law, so no highway money was lost.

According to Deb Garrett, Acting DEP Commissioner, Maine lost $78,000 of grant money from EPA because program submittals under the Clean Air Act were late.

The State of Maine has also been sanctioned in the past for failure to comply with federal laws other than the Clean Air Act. Failure to adopt mandatory seat belt legislation and motorcycle helmets laws subjects the state to a different type of highway sanction. Instead of being denied funds, the State is required to spend funds otherwise planned for resurfacing and similar projects on safety programs and education relating to the use of seatbelts and helmets.

IX. Emissions Credit Trading

A. What are emissions credits?

When an air pollution control program results in VOC or NOx reductions from an emissions source more than is required by federal law, the excess reductions can be used in a number of different ways. They can be set aside and protected from use to assure that air quality improves, or they can be made available for use as "emissions reduction credits." Emissions reduction credits can be used by industry to offset new emissions resulting from industrial expansion or the building of new industrial facilities.

B. How does the emissions testing program create credits?

The enhanced motor vehicle emissions testing and repair program reduces emissions of volatile organic compounds, nitrous oxides, and carbon monoxide. All those reductions are required in the urbanized areas of Maine where enhanced testing is required (the Portland and Kittery areas), but in the remainder of the 7-county testing area, only the VOC reductions are federally required. Thus, NOx reductions resulting from testing in the non-urbanized areas are considered to be in excess of federal requirements.

The enhanced I & M program reduces NOx emissions by 2000 tons annually. Twelve-hundred tons of the reductions are obtained in areas not required to operate the enhanced test program. Those NOx emission reductions may therefore become available for use as emissions credits, provided they meet other criteria in federal law and regulations.

C. What was the Louisiana-Pacific credit trade proposal?

A plan being pursued by Governor McKernan in late 1993 and early 1994 to determine the fate of 200 tons of the NOx credits from the testing program created controversy when it became public a week after the testing program began. According to the DEP, Louisiana-Pacific Corp. contacted DEP in 1993 to discuss its plans to expand capacity at its waferboard plant in New Limerick. DEP informed the company that it would need to obtain offsetting reductions of NOx emissions in order to obtain a license to emit additional NOx. When Louisiana-Pacific sought assistance in identifying reductions, DEP responded that there are few major industrial sources of NOx in Maine from which to obtain reductions, but that reductions from the enhanced testing program may be available for use. DEP corresponded with EPA to determine what would be needed to use I & M NOx reductions to offset the expansion.

When those plans were made public by the Natural Resources Council of Maine (NRCM) on July 6th, legislators and the public reacted with disbelief and anger. NRCM's press statement criticized the plan as one created to "rob Peter to pay Paul," since Maine motorists would be paying to repair their automobiles only to allow industry to pollute more. Clean air would suffer, industry would pollute more, and citizens would pay more to pollute less.

The President and Speaker asked the governor to withdraw the trade plans and asked the auto emissions committee to review the use of credits created by the I & M program and to formulate a state policy for using them fairly. Committee members spoke with Deb Richard, DEP, John Devine. Governor McKernan's representative, and Conrad Schneider of NRCM about the emissions trade.

Conrad Schneider expressed the belief that (1) credits are a valuable commodity, and if publicly-created credits are traded, they should be paid for and the revenue be used to help the public; and (2) the NOx reductions from the I & M program are not excess reductions, but are needed to bring Maine air into attainment with the federal ozone standard. Schneider explained that controlling man-made VOCs is not enough in Maine to control ozone, because Maine has such a large quantity of biogenic sources of VOC, such as trees and plants. The NOx reductions in the 7-county area must be preserved and dedicated to the creation of clean air.

On July 21st, Louisiana-Pacific announced that it was cancelling its plans to expand in Maine and withdrawing its request for use of the NOx credits. Although the withdrawal of that request did not alleviate the need for creation of a state policy on credits created by the auto emissions test program, it made the issue less immediate, so the Select Comittee focussed its efforts on emissions testing. A group convened by Governor McKernan in the fall of 1994, including the DEP, legislators, business and industry, and environmental organizations is meeting to formulate a proposal on emissions credit trading of all types, including possible trading of auto emissions credits. The proposal would not be officially adopted by the group, but would be presented to the public and the Legislature for debate.

X. Regional Air Quality and the Ozone Transport Region

A. What is the ozone transport commission and how does it operate?

The Clean Air Act created an interstate region called the Northeast Ozone Transport Region (or OTR) within which air currents commonly circulate, causing pollution in one state in the region to drift or be transported to other states in the region. States within the OTR are urged to work together to plan regional strategies to control ozone pollution. The region consists of:

- Maine
- Vermont
- New York
- Rhode Island
- Maryland
- Pennsylvania
- New Hampshire
- Connecticut
- New Jersey
- Massachusetts
- Delaware
- District of Columbia Metropolitan Area

To coordinate efforts to control ozone pollution, those states formed the Ozone Transport Commission (OTC). Maine has been represented on the Commission by the Commissioner of DEP and by Dennis Keschl, director of the Bureau of Air Quality at DEP.

The OTC searches for effective regional strategies to control ozone, since ozone created in one state affects other states in the region. OTC members have signed memoranda of understanding agreeing to adopt certain pollution control strategies, to the extent that adoption is within their authority, and to encourage adoption of legislation calling for other control programs that are not within their authority to adopt without legislation.

Although the resolutions and memoranda are not legally binding, DEP has chosen air pollution control strategies based on them and Senator Carey and other legislators have expressed concern that those decisions are made without legislative involvement.

Among the memoranda signed by OTC members are memos agreeing to opt into a federal program requiring the use of less-polluting reformulated gasoline, to adopt the California new car emissions standards, and to push for emissions credit trading rules that allow interstate trading of NOx credits.

Deb Richard of DEP stressed that it is important for Maine to continue participation in the OTC. Because so much of our ozone problem is caused by other states, we must work through the OTC to encourage other states to clean up their air. As part of efforts to encourage efforts by other states, Maine has chosen to be a leader in the OTC to demonstrate our commitment to clean air.

B. Can Maine get out of the ozone transport region?

The Clean Air Act provides a mechanism for states to "opt out" of the Ozone Transport Region and the Ozone Transport Commission if EPA authorizes them to do so. To opt out all or part of the State, Maine must demonstrate to the EPA that controls in the State or in the opt-out area "will not significantly contribute to attainment of the (ozone) standard in any area in the (ozone transport) region."[27]

Some legislators have expressed a desire to have Maine opt out at least the portion of the state that is in attainment of the ozone standard. If the attainment areas are excluded from the ozone transport region, industry located there would not be required to secure offsetting reductions of ozone precursors if they want to expand or form new industries. In addition, new industries would not have to be built using the most thorough emissions control equipment and existing industry would not be required under federal law to be retrofitted with control equipment.

XI. Comments from the Public

A. Goals and Schedule

After obtaining background information from state and federal agencies and from the testing contractor, committee members wanted to hear how the public felt about the emissions testing program and what their testing experiences had been.

Public hearings were held in each of the 7 counties subject to enhanced emissions testing. To enable people to attend without interfering with work schedules, hearings were held from 2-4 p.m. and 6-8 p.m. in each location. Over 1,500 people attended one or more of the hearings in the 7 counties, and over 300 people shared their opinions and experiences with the committee during 30 hours of public hearings.

The committee asked legislative staff to distribute Fact Sheets and Questionnaires to hearing attendees as they entered the meeting rooms. The Fact Sheet was prepared by legislative staff to explain the rationale for the program, the legal context for the program, and the ozone problem in the state. The questionnaire elicited detailed information about people's testing experiences, including the date and time of testing, the waiting time, ratings of employee competence and politeness, information on test passage or failure and cause of failure, and other comments.

The hearings were taped, and tapes are available for listening in the State Law Library in the State House in Augusta.

B. Messages from the Public

Few who testified at the public hearing disapproved of the goal of clean air, and many supported the concept of testing motor vehicle emissions. Most who attended the hearings, though, were critical of the testing policy, the implementation, or both. Many also expressed frustration about not being fully involved in the Legislature's or DEP's decision to enact or implement this program, and with the addition of what they felt to be another senseless governmental intrusion into their lives.

The most commonly mentioned policy concern was that limiting the test requirement to the 7-county area was discriminatory: if they have to test and repair cars, everyone should be required to do so. The most frequent criticism of implementation of the program was that vehicle owners did not trust CarTest employees to handle their vehicles without damaging them, that employees were rude or lacked knowledge to answer questions about the test.

Following is a summary of issues raised, opinions expressed and experiences related by those who testified at the public hearings. These experiences and opinions may not be typical of public experience and opinion, but these were the experiences and opinions that led legislators to believe that the program should be suspended.

1. Operational problems

(a) Employee Competence. CarTest employees lack competence, said many members of the public. One vehicle owner saw employees arguing with their supervisor over which of her car's hoses to pull off to perform the pressure test, and it turned out that the supervisor was wrong. Another says it took employees 32 minutes to perform the test, during which time 3 different employees got into her car. An employee referred to a man's truck as a Ford Taurus, which made him doubt that the employee knew much about motor vehicles. Employees were unable to figure out how to open a car's hood, or forgot to remove the prop rod before closing the hood.

BW of Woolwich, who testified at the Wiscasset public hearing, brought her car to the test station, but was told by an employee that her vehicle should not be tested because there was a hole in her muffler. She took the car to her mechanic who said the hole was not a defect. It is a "weep hole," put there by the manufacturer to allow water to escape from the base of the muffler and to prevent freezing in the winter. She returned to the station, took the test, and passed.

CM told legislators at the Topsham hearing that his car passed the test, but the employee forgot to pull out the prop rod before closing the hood, and did $500 of damage.

(b) Employee Knowledge. CarTest employees do not understand the test process or the rationale for the test. Mechanics and car owners told the committee that CarTest employees could not explain why the tests were needed, how they work, or what the results mean. An employee told one person that particulate matter, not VOC's, cause lung problems.

(c) Employee Professionalism. Some vehicle owners experienced unprofessional or discourteous treatment by employees. One employee reportedly remarked as the owner drove her vehicle into the test center: "Oh no, a 1982. That car'll never pass." That owner felt ridiculed; others said employees were rude to them or unhelpful.

VK, who testified at the Topsham public hearing, said that a CarTest employee who had just finished smoking a cigarette got into her car to perform the test. When VK retrieved the car after the test, the car reeked of cigarette smoke, to which VK is allergic.

(d) Vehicle damage. Vehicles are damaged, or there are perceptions that vehicles are being damaged. Emergency brakes were left on during the test, causing them to burn out. Tires were shredded by the dynamometer; employees

forget to reconnect hoses after the pressure and purge tests or reconnected them incorrectly; vacuum lines are blown off by the pressure test. The noise from the dynamometer made people think that their cars were being revved up to excessive speeds, causing one man to threaten that "If someone gets in my car and revs it up so high that the fence shakes [as was reported by an earlier speaker], I will gently remove him or her through the vent window."

(e) Repair Process. Obtaining repairs is costly, time-consuming and frustrating and sometimes results in more pollution. Several people reported that their mechanics were not sure how to repair cars so that they'd pass the test. Others complained that their vehicles showed higher levels of emissions following repairs than before, or they failed different parts of the test following repair. Owners who had removed catalytic converters from their pre-1983 vehicles (illegal under federal law, but not a violation of Maine's safety inspection law) had difficulty finding replacement parts. Car owners whose vehicles failed felt that they had not received enough information to enable them to understand what repairs were needed. Backyard mechanics felt that their repairs and parts purchases should count toward the repair waiver.

SF's vehicle failed 1 part on the first test. She had her car repaired and on the retest failed 2 parts. The mechanic did more work, and the car performed even more poorly. She told the committee "I'm not going back again. The horse was put behind the cart -- you didn't make sure mechanics know how to fix the problems."

(f) False Failures. Improper test methods give false failures. Vehicles with "rollover valves" failed the pressure test not because the gas distribution system was leaking but because the valve is designed to open under pressure to avoid pressure build-up. Although mechanics and auto manufacturers told EPA, DEP and Systems Control that the pressure test was not giving accurate results for those vehicles, CarTest continued to fail vehicles and some people paid for unnecessary repairs.

(g) Credibility of Test Results. The public felt that test results are inconsistent, unreliable, and therefore not credible. A former CarTest employee reported that he tested his car 20-30 times at the station, and passed 1/2 the time and failed 1/2 the time. Some testified that their vehicles passed a retest without having been repaired. Rumors circulated that adding a particular fuel additive before going to the test center would help a defective vehicle pass the test. Reports from different cars showed that different standards were used for cars that underwent a speedier test.

A Vassalboro man explained in Augusta that his motor vehicle failed the NOx and pressure tests on the first test. He spent $405 on repairs, and returned to the test station for a 2nd test. On that test, he again failed NOx and pressure, but he also failed the hydrocarbon and purge test, which he had previously passed. On that same day, he sought another test, at a different lane at the same test center. In that test, he got different results, failing the NOx and pressure tests, as he had on the first test. He returned to his mechanic and spent enough more on repairs to obtain a waiver. He has now spent over $450 on repairs, and he reports that his truck runs worse now than before the repairs.

RD's vehicle was tested 4 times. It failed NOx on the first trial; RD had $97 of repairs performed. It failed NOx again. An additional $195 of repairs were made, and the vehicle met the NOx standard but failed the purge test, which the vehicle had previously passed. Without additional repairs, he passed the fourth test, having spent $72 on test fees and $292 on repairs.

(h) Mechanics' equipment. Equipment used by CarTest is different from that available to mechanics. Mechanics told the committee that they can't guarantee that repaired vehicles will pass because even repair-grade IM 240 machines use a different standard of measurement than the test center equipment: parts per million, not grams per mile.

(i) Untestable vehicles. Many Maine vehicles, although they are workable and legal in Maine, are untestable. Many trucks have "downspout tailpipes", meaning that the tailpipe points straight down to the ground rather than pointing out behind the cab. Although it is technically a violation of federal law to tamper with any emissions control equipment, this is common practice in Maine and is not viewed by EPA as a significant problem. In the beginning days of the test program, CarTest sent people away to replace the pipes, and there was confusion among the centers about the policy for testing such vehicles. Do-it-yourselfers in Maine exchange motors on vehicles to prolong vehicle life, or remove catalytic converters, both of which are illegal under federal law. Both conditions would have to be reversed before CarTest would test.

RF of Waldoboro says that he reported to the Wiscasset test station for a test. Employees there told him they could not test his truck because his tailpipe went down, not straight out behind his truck. He was told that this does not comply with EPA standards. He went to Rockland and they tested the truck and it passed.

(j) Low-mileage waiver. Calculation of the 5,000 mile waiver is unfair. People say they would qualify for the exemption

because their recent usage has been low, but earlier high mileage years, or mileage put on by previous owners prevent them from qualifying for the exemption. Pre-1977 vehicles do not have titles, so a new owner can't prove that he has driven less than 5,000 miles a year by showing mileage since he purchased the vehicle. Vehicle owners questioned: why can't we use mileage we report when we register our vehicles?

(k) Test Center Locations. Some test center locations are inconvenient or inappropriate. The Wiscasset site is located on Route 1, which in the summer is nearly impossible to navigate without getting stuck in a traffic jam. A minister from a Rockland church complained that noise from the Rockland test center is disturbing prayer services, weddings and funerals at his nearby church.

(l) Contractor Selection. Systems Control shouldn't have been awarded the contract, said some. Their relationship with Snap-On Tools creates a conflict of interest. A California company shouldn't benefit from this contract; the State should own the test centers or a Maine company should.

(m) Test Center Comfort. Test centers are uncomfortable. One vehicle owner says that the noise level inside the test center exceeds OSHA standards. Restrooms couldn't be located; the customer waiting area lacked seats and looks like a concrete bunker.

(n) Complaint Resolution. Complaint resolution and information is hard to obtain. No one answers the 800 number or it's busy all the time. DEP should resolve appeals and complaints, not the contractor.

2. Policy Concerns

Many people who addressed the committee had not had their cars tested, but had strong feelings about the testing requirement.

(a) Maine Air Quality. There is no pollution problem in Maine, they claimed. There are very few hours of federal standard violations. "We have the cleanest air in the nation." A California resident of 17 years found it "hard to believe that Maine has a pollution problem." No one believes the scientists, the EPA or the DEP. There is a suspicion that the program is operated only to allow industry to "buy its way out" of pollution controls.

(b) Cause of Pollution. If there is a pollution problem in Maine, our cars are not the main cause. Tourists, transport from out-of-state, diesel vehicles and even volcanoes are the problem, not our cars. We should wait until other states clean up their air before we incur costs to repair vehicles. One speaker counted 196 gravel trucks passing on Route 196 in a four-hour period, and felt that their pollution should be controlled.

(c) Discriminatory Test Program. The current test program is discriminatory. Only 7 counties are included, but cars around the state emit pollutants. Businesses on the border are at a competitive disadvantage. Others urged the committee not to extend the program statewide, they have worked hard in Waldo County to prevent the area from being labelled a moderate nonattainment area and needing I & M.

(d) Process. The current program was developed without public input. "We didn't know about it." It would have been better to involve the public more fully before the program was implemented than to deal with the hostility after.

(e) Alternatives for cleaning the air. There are less expensive alternatives for cleaning the air. Road-side laser testing is as effective at identifying the worst polluters. Put monitoring devices on cars, or hold the car manufacturers responsible. We don't need testing because new car technology will eventually take care of the problem. Increase the tax on petroleum products to cut down on consumption. Use vehicle scrappage programs.

(f) Financial Hardship. The test imposes financial hardship on the poor. Many worry that they can't afford repairs and there is no alternative transportation. One woman explained that she calculated that if all 4 of her old cars failed, she'd have to spend $2,000. Repairs should be imposed on a sliding scale basis.

KW took his truck to the Augusta test station 3 times. The first time, he decided not to get the truck tested because his truck was overheating and he was told at the station that if it overheated during the test, they would have to stop the test and he'd be required to pay the fee for another test. He was told by DEP that he qualified for a low-mileage waiver, but was then told by CarTest that he did not qualify. When he returned to the test center for a second time, the truck's brake lines ruptured while it was being run on the dynamometer. He filled out an incident report, but does not believe that CarTest will pay for the repairs. He can't afford the $400 -600 it will cost to repair the truck, so the truck is now sitting idle and inoperable.

(g) States' Rights. The federal government shouldn't tell us what to do. This is an issue of state's rights. "I'm sick of the feds telling us what to do." The Clean Air Act is designed for the average state, but Maine is not average: we have cleaner air to begin with and stricter controls already in place, so it's harder for us to get the 15% VOC reduction.

(h) CarTest Monopoly. Don't let CarTest have a monopoly on testing. Let local garages do it too; they're more knowledgeable and more convenient.

(i) Credits trading. Don't make people pay for business's pollution. Do not give away clean air benefits. The governor's plan to give credits to Louisiana Pacific "leaves a bad taste in your mouth" (for the auto emissions program).

(j) Other States. We should resist the federal mandate, like other states are doing. Vermont and California are resisting EPA. Colorado is refusing all unfunded federal mandates and withholding federal gas taxes to compensate for sanctions. If other states don't do testing, we won't be able to achieve clean air here. If other states resist, we can, too).

3. Public Perceptions and Misperceptions

Much of the testimony indicates that the public lacked information or formulated their opinions on the basis of incorrect information. Although the misperceptions and gaps in information can be corrected, public perception had already been significantly affected by both. Among the testimony that indicated a lack of information, skepticism, or misinformation were the following comments:

(a) Other states' fees. Some reported that other states have lower test fees for the same test. Those comments were comparing fees for the more simplified testing that many states have performed for years, not for the enhanced testing program. Most of the states they referred to will have enhanced testing in 1995 and the fee will be more like the fee in Maine, perhaps higher.

(b) Test noise. People thought that the noise from the dynamometer was noise from their car engines. Since the noise is quite loud, it made people feel that their vehicles were being improperly handled and damaged.

(c) Other states. Other states don't have to do this. Actually, 24 other states are expected to operate enhanced testing programs.

(d) Test rationale. People suggested that the test had nothing to do with clean air, but was instead a way of allowing industry to "buy its way out" of pollution control. The test was a "diversionary tactic" to get our attention away from industry. The I & M Program was not adopted as an alternative to industry controls, but in addition to them. Industry is expected to spend significant sums to build or retrofit facilities that emit pollutants.

(e) Standards. Believing that all cars are held to the same standard, some felt that older cars can't possibly pass the test. The standard is based on model year and type of vehicle, so vehicles are only expected to meet standards that are based on emissions control equipment required at the time the vehicle was constructed. Cars are not required to control emissions like a 1994 car.

XII. Select Committee Discussion of Options

After completing public hearings, the Select Committee met to discuss options and four immediate options appeared:

- Continue the emissions testing program and improve operations while testing continues;
- Suspend the program and make improvements during suspension;
- Repeal the testing program; or
- Cut testing back to the 3 required metropolitan areas.

To evaluate each of the options, the committee sought additional information from DEP, EPA, business groups, the Maine Department of Transportation and the Attorney General about the consequences of these options.

A. Federal law consequences of I & M changes

Federal law calls for EPA to apply sanctions to states that fail to comply with Clean Air Act requirements. Major changes to the enhanced I & M program could jeopardize Maine's compliance with three separate Clean Air Act requirements: the requirement to operate an enhanced motor vehicle testing program in 2 urban areas in Maine and a basic program in a third; the requirement to reduce VOC emissions by 15% in the moderate nonattainment area; and the requirement to achieve compliance with the National Ambient Air Quality Standard for ozone by November, 1996.

Three types of federal sanctions could be imposed for failure to comply with any of those requirements: increased offset requirements for new businesses, loss of highway funds, and federal takeover of pollution control programs in the state.

Jane Lincoln, Deputy Commissioner of the Maine DOT, addressed the committee about highway fund sanctions. (Her letter to the committee outlining sanctions is included in Appendix F.) Loss of highway funds could occur at several junctures. First, EPA has authority to impose sanctions immediately upon a state's failure to plan for or implement a required program under the Clean Air Act.

Second, EPA is required to impose highway fund sanctions 24 months after finding that a state has failed to submit a plan calling for a program required by the Clean Air Act. Mandatory sanctions normally are applied only to the nonattainment areas of the state.[28]

A different type of sanction, known as "loss of transportation conformity", is the most immediate threat to highway funds. Federal law requires states to spend federal highway money only if it is spent in conformity with the state's plan to reduce air pollution. If the plan has not been approved, the state loses conformity with that plan and new expenditures on federally-funded projects must be put on hold.

According to Deputy Commissioner Lincoln, Maine is slated to receive about $140-150 million per year for highway projects. Approximately $80 million is for highway improvements, such as resurfacing and bridge replacement. Of that total, approximately $72 million is at risk, since federal law does not allow withholding of safety-related, air quality improvement and mass transit funds. Approximately $35 million is slated to be spent in the nonattainment area.

Another $60-66 million is allocated for demonstration projects over the next few years, projects such as the Carleton Bridge in Bath, construction of the Portland-South Portland Bridge, and the Brunswick-Topsham Bypass. All that money would be at risk.

In other words, approximately $100 million would be lost if sanctions were imposed only immediately in the nonattainment areas of the state, and approximately $140 million would be lost if all highway funds were lost. The $60-66 million of demonstration project funds would not be affected if the sanctions are imposed after those projects are completed.

Committee members questioned whether the sanction threat was real. Lincoln replied that Maine's receipt of federal funds has been impacted by our failure to adopt motorcycle helmet laws and to conform with federal seat belt laws. We were denied the use of $827,000 of federal funds for resurfacing. That money was not lost entirely, but was transferred to the Department of Public Safety to provide public education about seat belt and helmet safety. We stand to lose $1.6 million in the same way in 1995.

In addition to highway fund sanctions, the state risks an increase in the amount of offsetting emissions that would have to be obtained before industries can expand or locate in the State. Currently, the Clean Air Act requires offsets of 1.15 units of emissions for each additional unit of emissions. If the state fails to comply with the Clean Air Act, that sanction could increase to 2 to 1. The increased offset is required 18 months after EPA finds failure to comply with the Act, but can be applied by EPA at any time as a discretionary sanction.

B. The need for alternative VOC controls

Repealing the I & M program does not alleviate the state's obligation to reduce VOC emissions by 15% in the moderate nonattainment area. Current state plans expect about one-third of those reductions to come from the enhanced I & M program, and another 20% from the use of reformulated gasoline in the moderate nonattainment area. Other reductions come from adding control equipment to large industrial emitters of VOCs, and controls on businesses and industries using paints, solvents and degreasing agents.[29] Representatives of business and industry expressed concern to the committee that without the I & M program, the state would have to force businesses and industries to squeeze additional emission reductions out of already highly-regulated businesses.

Chris Hall, of the Maine Chamber of Commerce and Industry, said that large sources of VOCs are already required to reduce VOC's by up to 85%. Additional reductions would be extremely costly. Estimates are that reductions of additional tons of VOCs from industry would cost $5,000 per ton, while reductions from I & M can be obtained at a cost of approximately $500 per ton. Peter Merrill, of the Maine Oil Dealers Association, predicted that one alternative, requiring gasoline stations to add vapor recovery equipment to their gas pumps, would only reduce 2.37 tons of VOCs per summer weekday at a cost of $3,000 a ton compared to 10 tons at $500 a ton for the enhanced I & M program.

Rep. Jacques also pointed out that additional reductions would come not just from large sources, but from small local sources as well. Hospitals, schools, and other public institutions often have facilities that emit VOCs. They would be asked to pay for expensive emission control equipment to squeeze small amount of reductions to achieve the required emission reductions.

C. Contract issues

Because the state has signed a contract with Systems Control, Inc. to operate a testing program covering certain areas of the state, significant cutback of the program or repeal of the program might subject the state to contract damages. Systems Control reported that, as of mid-June of 1994, they had already spent over $13.5 million building and equipping the test stations and training employees. Although there were provisions in the Request for Proposals that the State said it would not pay damages if the program were repealed, there is doubt about what effect those provisions would have. Members expressed concern about the cost to taxpayers of reimbursing Systems Control for contract damages.

D. State Law Issues

If the program were to be suspended, committee members wanted to know whether suspension could occur without a Special Legislative Session to amend the law. Most committee members did not feel that it was good policy to repeal the program, at least not at this time and believed that the program would be repealed if legislators were called into Special Session to vote on the program.

Speaker Dan Gwadosky informed the committee that he and President Dutremble had met with Governor McKernan to discuss how suspension might be achieved without a special session. They believed that the parties to the contract, DEP and Systems Control, might be able to agree to suspend the mandatory testing. That agreement would alleviate state concerns that the taxpayers would be asked to pay for a court battle and possible contract damages.

Attorney General Michael Carpenter was asked to give his thoughts on program suspension without formal legislative action. He told the committee that his office would be comfortable defending the suspension provided the parties agreed and that the state was continuing to move forward with the intent of operating the enhanced I & M program.

E. Suggestions for changes during program continuation

EPA representatives Linda Murphy and Robert Judge offered the committee several suggestions for making the program more workable without suspending it. They suggested that the State find mechanisms to help low-income persons pay for repairs. In the non-urban areas where enhanced I & M is not required, repair waivers can be given after lower repair expenditures. They also suggested that the test centers give mechanics the second-by-second test results to help them diagnose vehicle problems, and they have given Systems Control authority to cease using the purge and pressure tests, which have not worked correctly on certain motor vehicles.

XIII. Committee Recommendation to Suspend Mandatory Testing

A. Committee's Decision

The Select Committee met on August 29th to discuss its status report, due to be delivered to the Legislative Council that afternoon. Members felt pressed by the approach of September 1st to determine whether the program should be suspended. Failure to decide before the 1st would subject thousands of motorists due for inspection in September to uncertainty about their legal obligations regarding motor vehicle registration.

All members felt that significant changes need to be made to the operation of the program in order to gain public confidence and credibility in the program. Some members asked to speak with Systems Control President Robert Miller, due in Maine that afternoon, before deciding whether to suspend. If he presented a plan that convinced them that he would correct the problems without a suspension, a suspension might not be needed.

Others expressed a lack of faith in the ability of Systems Control and the DEP to correct the problems while the program was fully operational. They felt that suspending the program while the changes are being made would make it easier for the public to see the improvements when the program resumes.

Members voted unanimously (with one member absent) to recommend that the program be suspended to allow Systems Control and the DEP time to improve the problems identified by the committee. The committee did not specify a time period for suspension, or the exact terms of the suspension. Parties to the contract, Systems Control and DEP, were asked to meet and negotiate a suspension process, taking into account the committee's concerns.

The committee appointed a subcommittee to react to proposals as the negotiations proceeded, and to pass on the committee's concerns to the negotiators. Appendix I includes a list of concerns the committee asked Systems Control and DEP to address during the suspension

B. Terms of the Suspension

DEP and Systems Control agreed to suspend the mandatory testing program for 6 months, beginning September 1st, and signed a Memorandum of Agreement setting forth the terms of the suspension. The Memorandum of Agreement is included as Appendix H.

Between September 1, 1994 and February 28, 1995, test centers would remain open and any person whose vehicle was due for testing between September 1, 1994 and August 31, 1995 was entitled to have the vehicle tested during the voluntary testing period and to use a certificate of compliance from that test to register the vehicle for the next two registration cycles. Any person who did not have the vehicle tested would be required to pass the test after the suspension ends.

To give people incentive to have their cars tested during the voluntary test period, Systems Control agreed to lower the test fee from $24 to $14. The minimum repair expenditure to obtain a waiver was lowered from $450 to $125 for 1981 and newer vehicles and from $125 to $75 for older vehicles.

To put those who complied with the test requirement in July and August in the same position as those who are tested during the voluntary test period, vehicle owners who had vehicles tested and repaired in July and August were to receive a $10 voucher good toward the next test fee. Vehicle owners who spent more than the minimum repair expenditure required during the voluntary test period would be reimbursed for those excess expenditures from a fund created from part of the test fee.

XIV. Remaining Issues for the 117th Legislature

After recommending that mandatory testing be suspended, the Joint Select Committee did not meet again to resolve the long-term fate of the emissions testing program. That issue remains for resolution by the 117th Legislature.

The committee would advise the Legislature to begin exploring options for long-term testing policy by looking at the following questions:

- What is Maine's air quality and how much is contributed by out-of-state sources?
- Is there a less expensive testing method that would provide significant air quality benefits?
- Should the program be expanded statewide, or limited to the required urbanized areas (look at cost, loss of air quality benefits)?
- What can be done to help people who can't afford vehicle repairs?
- How can adequate numbers of repair technicians be trained and is the equipment necessary to perform repairs of emissions control equipment available to them?
- What should be done with emissions reduction credits created by the test and repair program?
- What are the impacts of changing the program (federal sanctions, continued ozone problems, contract damages)?
- Is the new Congress likely to amend the Clean Air Act to alter Maine's obligation to operate the program?

The Legislature's decision on auto emissions testing is likely to be affected by a more flexible and uncertain legal framework than the framework that faced legislators when the auto emissions testing program was enacted in 1992. EPA has expressed willingness to approve emissions testing programs that differ in design from Maine's program. Bills have been introduced in Congress to alter the Clean Air Act's requirements. And the Citizens for Sensible Emissions Laws announced that they have filed with the Secretary of State a referendum petition to repeal the auto emissions testing program. If the Secretary of State confirms enough of the 60,000 signatures, the repeal will come before the Legislature. If the Legislature does not repeal the program, voters in Maine will have an opportunity to do so in November of 1995.

XV. Comments of Individual Members

A. Comments of Senator Georgette Berube and Representative Rose Aikman

Although we agree with the information and recommendations set forth in the Select Committee's report, we would like to supplement the report with our personal comments on issues that were not resolved by the entire committee.

We would like to see an end to the auto emissions testing program in Maine. Many important questions need to be answered before we impose on our citizens the cost and inconvenience of this program. What is Maine's air quality? How much of our ozone is transported from other states? Will Congress change the Clean Air Act and alleviate, soften or delay the legal requirement to test our vehicles? How does our use of reformulated gasoline affect our clean-up plans?

Before we can fully support repeal of mandatory testing of motor vehicles, however, we must find a way to prevent large and small industry in Maine from being burdened by additional controls to compensate for the repeal of motor vehicle controls. The federal Clean Air Act requires us to reduce emissions of volatile organic compounds by 15% in the 7-county moderate nonattainment area. If we do not obtain reductions from motor vehicles, we must obtain them from large and small industries, many of whom already bear significant regulatory burdens.

To free motor vehicle owners of the burden of the testing program until the Legislature has time to study the affect of repeal on Maine industry, we urge a continuation of the suspension of mandatory testing past the March 1st date agreed to by Systems Control and the Department of Environmental Protection.

NOTES

[1] U.S. EPA, Ozone: Good up High, Bad Nearby, January 1994.

[2] Maine Department of Environmental Protection, 1990 Base Year Inventory, July 20, 1994.

[3] 56 Fed. Reg. 56771-56772 (1991). Classification is based on "design values."

[4] 38 MRSA §584-A, sub-§4.

[5] Comment of Andy Johnson, Maine DEP, to the Select Committee's Subcommittee on Air Quality, August 3, 1994.

[6] American Lung Association v. Browner, DC DC, No. 1:94-CV-02140 (1994).

[7] Linda Murphy, U.S. EPA, Comments to the Energy and Natural Resources Committee; and Regulatory Impact of the Clean Air Act on Attainment Areas, a report by the Ozone Attainment Area Committee to the Joint Standing Committee on Energy and Natural Resources, March 1994, p. 9.

[8] Comments of Cliff Michaelson, Maine DEP, to the Select Committee's Subcommittee on Air Quality, August 3, 1994.

[9] Amended Request for Proposals (RFP), Contractor Selection for the Motor Vehicle Emission Inspection Program, February 3, 1993, Section 7 (A) (1).

[10] In the article "Bridging the Gap Between Energy and the Environment" (Maine Policy Review, April 1993), author John Flumerfelt estimates that the burning of gasoline, most of which is done by cars, contributes 35,105 tons of VOCs annually to Maine air and diesel burning contributes 737 tons.

[11] Comments of Robert Judge, U.S. EPA.

[12] Manufacturers of Emissions Controls Association, I/M Implementation Status Report June 30, 1994 (Danielle Fern, ed.).

[13] Manufacturers of Emissions Controls Association, I/M Implementation Status Report June 30, 1994 (Danielle Fern, ed.).

[14] Klein and Saraceno, "Breathing Room, California Faces Down the EPA Over Centralized Smog Check," Reason, June 1994, p. 26.

[15] 57 Fed. Reg. 52978 (1992).

[16] State of Maine Contract for Special Services between the State of Maine, Department of Environmental Protection and Systems Control, Inc., dated January 31, 1994, Article I, Section W.

[17] See the January 31, 1994 contract between the DEP and Systems Control, Inc, Article IV, Section C.

[18] Comment of Robert Judge, U.S. EPA.

[19] Jeff Ham, "Same vehicle, seven emissions test reports", Maine Sunday Telegram, July 31, 1994.

[20] U.S. EPA, Audit of the Enhanced I/M Program in Maine, August, 1994.

[21] 5 MRSA §1831. That section requires each department of state government to adopt rules setting forth a procedure for awarding contracts, or to follow Department of Administrative and Financial Services (DAFS) rules. The DEP has not adopted its own rules, and is therefore subject to the DAFS rules.

[22] January 31, 1994 contract between State of Maine/DEP and Systems Control, Inc., Article I, paragraph (C)(1)(a).

[23] 42 U.S.C. §7511a(c)(3)(C)(iii).

[24] See 42 USC §7509 and 7410(m); and 59 Fed. Reg. 39832 (1994).

[25] See 42 USC §7410, §7413(a).

[26] See 59 Fed. Reg. 3534, 3540, 3544 and 26993 (1994).

[27] 42 USC §7506a(a)(2).

[28] 59 Fed. Reg. 39382 (1994).

[29] Maine DEP, Draft 15% (VOC Reduction) Plan, January 1995.

GLOSSARY

Ambient Air

The air surrounding us, as compared to the upper atmosphere or air that is emitted directly from a smokestack or vehicle tailpipe.

Anthropogenic Sources

Sources created by human activity, such as operation of motor vehicles and factories.

Attainment Demonstration

An effort to use the best science available to determine whether a given set of strategies to reduce pollution will result in clean air being attained/achieved.

Basic I & M

Motor vehicle emissions test procedure required by the Clean Air Act since 1977 in many states and in 1990 in several other areas. Basic testing involves testing vehicle emissions while the vehicle is idling. Compare to "enhanced I & M."

Biogenic Sources

Naturally occurring sources, such as trees and plants.

CarTest

The name under which Systems Control, Inc. operates the motor vehicle emissions testing program in Maine.

Centralized testing

Emissions testing performed at one of a small number of stations owned by the state or by a single private contractor. To avoid a conflict of interest and to protect consumers, centralized testing is often done at a "test-only" station, meaning that the station does not perform repairs on vehicles that fail the test.

Decentralized testing

Testing at local garages as compared to a centralized test facility. Decentralized testing programs often allow stations that perform the test to repair the vehicles that fail the test.

Dynamometer

Treadmill on which motor vehicles are operated during the 4-minute enhanced I & M test; the dynamometer allows the vehicle to be operated under conditions that simulate normal driving conditions.

Emissions Credit, Emissions Reduction Credit, ERC

A credit represents a unit of emissions of a certain pollutant that can be used to offset increased emissions of that pollutant from another sources. A credit may be created when an industry or other source reduces its pollutant emissions more than is required under federal law. Not all emission reductions result in credits. Federal law limits the creation and use of credits, and state law may impose additional restrictions.

Emissions Credit Trading

Trading of emissions reduction credits between the owner of a credit and an entity that needs a credit to offset an increase in emissions of that same pollutant. The credit owner may be the State, an industry, or a credit bank.

Enhanced I & M

Motor vehicle emissions test and repair program required by the Clean Air Act Amendments of 1990 in urbanized areas of Maine and many other states. Enhanced testing involves measuring vehicle emissions during acceleration and deceleration and checking for leaks from the vehicle's fuel distribution system. The procedure is "enhanced" as compared to the less sophisticated and less effective "basic I & M" testing required in less populated, less polluted areas.

15% Plan

A plan that shows how Maine will assure that the total emissions of volatile organic compounds from business, industry and motor vehicles will be 15% less in 1996 than they were in 1990. The plan is required by the Clean Air Act and was required to be submitted to the Environmental Protection Agency by November 15, 1993.

HC (Hydrocarbons)

Hydrocarbons are a type of Volatile Organic Compound; See VOC.

Idle test

Emissions test performed only while vehicle is idling, as compared to transient test, which tests emissions under conditions simulating actual use, including acceleration and deceleration.

I & M (Inspection and Maintenance)

The motor vehicle emissions inspection and maintenance program. Vehicle emissions control equipment must be not only inspected, but also repaired and maintained in working order to control polluting emissions.

IM240

Test equipment used to perform the enhanced I & M test. The "240" refers to the 240 seconds needed to complete the test. The test involves accelerating and decelerating the vehicle in accordance with a "trace", measuring emissions the entire time.

Low-income repair extension

Provision in Maine law allowing low-income persons up to one year to repair vehicles that fail the emissions test.

Low-mileage waiver

Provision in Maine's law exempting low-mileage vehicles from the emissions test. A vehicle is a low-mileage vehicle if the owner can demonstrate that the vehicle has been driven fewer than 10,000 miles over the previous two years.

NAAQS (National Ambient Air Quality Standard)

The maximum concentration of gasses, chemicals and other substances that may be present in the air we breathe (the ambient air) without causing harm to human health or welfare. The Environmental Protection Agency establishes NAAQS under authority granted by the federal Clean Air Act. EPA has established NAAQS for ozone, lead, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter. Once EPA establishes a NAAQS, states with air that exceed the allowed concentrations must act to reduce the level of contaminants in their air.

Nonattainment area

A county or other area that EPA has determined to have unhealthy air. Nonattainment classifications for ozone are made by comparing levels of air contaminants in a state measured over 3 years to the national ambient air quality standards developed by EPA.

NOx (Nitrogen oxides)

NOx is an ozone precursor because it combines with hydrocarbons to form ozone. Nitrogen oxides are created by combustion of fossil fuels and are released from industrial smokestacks, large boilers and motor vehicles.

Offset

Reduced emissions of a pollutant from one source that compensates for (offsets) an increase of the same emission from another source in the same area. The Clean Air Act requires new or expanded industry in Maine to offset each additional unit of pollutant with more than one additional unit of reductions.

Opt-out

Removal of a state or a portion of a state from a requirement of the Clean Air Act. Most often it refers to removal from the ozone transport region. A state may ask EPA to "opt-out" a portion of the state from the ozone transport region, and EPA will grant the opt-out if the state can show that controlling ozone or ozone precursors in that portion of the state "will not significantly contribute to attainment of the (ozone) standard in any area of the region." 42 USC §7506a(a)(2)

OTC (Ozone Transport Commission)

Commission composed of representatives of the District of Columbia and the 12 states included in the Ozone Transport Region. Recognizing that ozone is transported among states in the region, and that no single state can control its ozone without other states' help, Commission members work together to develop common ozone control programs. Maine has been represented on the OTC by DEP Commissioner or Acting Commissioner and by DEP Air Quality Director Dennis Keschl.

OTR (Ozone Transport Region)

Region within which ozone and ozone-precursors travel, causing ozone in one state to move into another state on wind currents. In the Clean Air Act, Congress designated the Northeast Ozone Transport Region, consisting of Maine, New Hampshire, Vermont, Connecticut, Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, and the Washington, D.C. metropolitan area.

Ozone

Ozone is a form of oxygen (O_3) that is created when nitrogen oxides and volatile organic compounds combine in the presence of sunlight.

Ozone Precursors

Ozone is not directly emitted by any source, but is formed when certain types of gasses combine through a chemical reaction. The gases that combine to form ozone are known as ozone precursors. Nitrogen oxides and hydrocarbons (also known as volatile organic compounds, or VOCs) are ozone precursors.

Pressure Test

Portion of the enhanced I & M test that identifies leaks in the fuel or vapor lines or the gas tank.

Purge Test

Portion of the enhanced I & M test that determines whether the purge canister is operating properly. The purge canister takes gasoline vapors from the gas tank and the carburetor and injects it into the engine to be burned.

Repair Waiver

Provision in federal law (and Maine law) that determines how much a person must spend to repair a vehicle that does not pass the enhanced I & M test. If a person spends $450 or more (or $125 for 1981 and older model year vehicles) trying to repair a vehicle's emissions system, and the vehicle remains unable to pass the test, the vehicle is given a repair waiver and the owner may register the vehicle even though it does not pass the test.

Rollover valve

A valve included in the gasoline distribution system of some motor vehicles that prevents vapor (or liquid) gasoline from flowing past it. It serves as a pressure relief valve. Certain vehicles with this valve were inappropriately failed at the beginning of Maine's I & M program.

Sanctions

Penalties that are imposed on states that violate the federal Clean Air Act, by refusing to implement required programs, by failing to submit required plans, or by failing to clean their air sufficiently to bring air contamination within allowed levels.

SIP (State implementation plan)

A plan that sets forth all the programs Maine is required to operate by the Clean Air Act, (including licensing of industries, operation of small business assistance programs, improvement of emission controls in existing industries and motor vehicle testing in urbanized areas) and programs Maine is relying on to clean up the state's ozone problem (including the enhanced I & M program and reformulated gasoline).

Systems Control, Inc.

The company chosen by the State of Maine to operate the enhanced I & M testing program in Maine. Systems Control, Inc., a California-based company, was a subsidiary of Snap-On Tools until its sale in late 1994. Systems Control, Inc. is now a separate corporation, which operates the Maine test program through a Maine subsidiary named SC Testing Technology, Inc.

Trace

Graphic display of the speed at which a vehicle is operated on the dynamometer at each second of the 240-second enhanced I & M test. A CarTest employee operates the vehicle and must maintain the speed within the lines of the trace, or the test is cancelled. The maximum speed on the trace is 56.7 miles per hour.

Transient test

Emissions test performed under conditions simulating actual use, including acceleration and deceleration, as compared to an idle test, which measures emissions only while the vehicle is idling.

Transport

The movement of air containing contaminants from the source of the contamination to other areas, including movement among states.

Transportation Conformity

Provision of the Clean Air Act that requires federal highway funds to be spent in a way that conforms to the state's plans for improving air quality.

VOC (Volatile Organic Compounds)

A family of chemical compounds that contain carbon and hydrogen and that evaporate into gasses under certain conditions (volatility).

Waiver

See repair waiver and low-mileage waiver.

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#288STUDY

APPENDIX A

Maine Motor Vehicle Emissions Testing Laws
(As of January 31, 1995)

Title 29, Maine Revised Statutes
Section 102-C

29 § 102-C. Motor vehicle emission inspection requirement for vehicle registration

1. **Requirement.** The owner of a motor vehicle registered in any area designated by the Federal Government pursuant to 40 Code of Federal Regulations, Part 81 as nonattainment for ozone and classified as moderate or more severe nonattainment area must present a certificate of compliance or waiver, as defined by Title 38, section 2401, at the time of registration. A certificate of compliance or waiver is not required for motor vehicles exempted by Title 38, section 2402.

2. **Suspension.** If the owner of a motor vehicle subject to the requirement of subsection 1 fails to present a certificate of compliance or waiver, the Secretary of State shall suspend the registration certificate and plates for that motor vehicle. The suspension must continue until the owner of the motor vehicle presents a certificate of compliance or waiver to the Secretary of State or an authorized agent.

3. **Penalty.** The owner of a motor vehicle with a registration certificate and plates suspended pursuant to subsection 2 may not permit that motor vehicle to be operated on a public way or parking area. A violation of this subsection is a traffic infraction for which a forfeiture must be assessed. If the model year of the motor vehicle is 1981 or later, the forfeiture must be $450. If the model year of the motor vehicle is earlier than 1981, the forfeiture must be $125.

Title 38, Maine Revised Statutes
Chapter 28 (Sections 2401-2408)

38 § 2401. Definitions

As used in this chapter, unless the context otherwise indicates, the following terms have the following meanings.

1. **Certificate of compliance.** "Certificate of compliance" means a written document with a serial number indicating that a motor vehicle complies with rules adopted pursuant to this chapter.

2. **Certificate of waiver.** "Certificate of waiver" means a written document with a serial number that indicates the requirement of compliance with rules adopted pursuant to this chapter has been waived for a motor vehicle under section 2403.

3. **Convenient public access.** "Convenient public access" means reasonable driving distance to a public emission inspection station and reasonable waiting time at a public emission inspection station to have vehicle emissions tested.

4. Fleet emission inspection station.

5. Low-emission adjustment. "Low-emission adjustment" means the repair or adjustment of basic emission-related components or systems such as spark plugs, air-cleaner filter, choke, engine idle speed and engine timing.

6. Motor vehicle. "Motor vehicle" has the same meaning as provided under Title 29, section 1, subsection 7.

7. Public emission inspection station. "Public emission inspection station" means a facility for motor vehicle inspection operated under contract with the department under section 2404.

38 § 2402. Inspection requirement

1. Requirement. After July 1, 1994, each motor vehicle registered in any area designated by the Federal Government under 40 Code of Federal Regulations, Part 81 as nonattainment for ozone and classified as a moderate or more severe nonattainment area must be inspected biennially for air pollution emissions as provided in this chapter and must meet the requirements of Title 29, section 2502.

2. Location of inspection. The inspection must take place at a public or emission inspection station.

3. Inspection of certificate by law enforcement officer.

4. Exempt vehicles. The following motor vehicles are exempt from the requirements of this section:

A. A motor vehicle manufactured before the model year 1968;

B. A motor vehicle having a gross vehicle weight rating of more than 10,000 pounds;

C. A motor vehicle exempt from safety inspection or requiring only a partial safety inspection under Title 29, section 2506;

D. A motor vehicle with a model year less than 2 years prior to the current calendar year;

E. A motor vehicle registered as a street rod as defined in Title 29, section 1, subsection 15-C-1;

F. A class of motor vehicles exempted by the rules of the department because that class of vehicle presents prohibitive inspection problems or is inappropriate for inspection;

G. A motor vehicle that obtains its power solely by a means other than gasoline, such as diesel fuel, electricity and propane;

H. Motorcycles and mopeds as defined in Title 29, section 1 and autocycles as defined in the motor vehicle inspection manual adopted by the Department of Transportation; and

I. A motor vehicle that is driven fewer than 10,000 miles in a 24-month period, if the owner of the vehicle complies with rules establishing a method of administering and verifying this exemption. The board shall adopt such rules and shall consult with the Secretary of State before adopting the rules if the method to be established involves the office of the Secretary of State.

5. Staggered inspection schedule. The board may adopt by rule a mechanism to stagger biennial inspections over the first 2 years of the Motor Vehicle Emission Inspection Program.

38 § 2403. Motor Vehicle Emission Inspection Program

The Motor Vehicle Emission Inspection Program is established within the department to test and inspect motor vehicles that are subject to the requirements of section 2402 for air pollution emissions.

1. Criteria and standards. The board, on or before January 1, 1993, shall adopt rules establishing standards and criteria governing the testing and inspection of motor vehicles for air pollution emissions and emissions equipment. The rules must:

A. Specify maximum emission levels for motor vehicles, based on the levels of emissions necessary to achieve applicable federal and state ambient air quality standards. The standards may be different for different model years, sizes and types of motor vehicles;

B. Establish testing procedures and standards for test equipment used for inspection and on-road testing devices;

C.

D. Establish standards and procedures for the issuance and terms of certificates of compliance and waiver.

2. Repairs. Repairs or adjustments necessary to bring a vehicle into compliance with applicable emission limitations are the responsibility of the vehicle owner.

3. Certificate of waiver. A contractor operating a public emission inspection station shall issue a certificate of waiver for a vehicle that fails to pass the designated emission standard upon an initial inspection and after repair or adjustment again fails to pass the emission inspection if:

A. A low emission adjustment is performed on the vehicle; and

B. The cost of repairs performed on the vehicle exceeds the repair cost limit as specified in subsection 4.

4. Repair cost limit. The board shall establish by rule a repair cost limit consistent with the requirements of the federal Clean Air Act Amendments of 1990, Public Law 101-549 and federal regulation. In assessing the costs of repairs and adjustments included in the repair cost limit the following costs must be excluded:

A. Costs covered under warranty; and

B. Costs necessary to repair or replace any emissions control system or mechanism that has been removed, dismantled or rendered in violation of Title 29, section 2189.

38 § 2404. Public emission inspection stations; contract

The Motor Vehicle Emission Inspection Program shall make available public emission inspection stations.

1. Public emission inspection stations. The board shall determine by rule performance standards for the number, location and size of the public emission inspection stations to provide convenient public access.

2. Contract for services. The commissioner shall contract with a private entity for the design, construction, equipping, establishment, maintenance and operation of public emission inspection stations and related services and functions. The contractor and its officers and employees may not be directly engaged in the business of selling, maintaining or repairing motor vehicles or selling motor vehicle replacement or repair parts, except that the contractor may repair any motor vehicle owned or operated by the contractor. The contractor's employees are not employees of the State for any purpose. Contracts must require the contractor to operate the public emission inspection stations for a minimum of 5 years and may provide for equitable compensation from the Motor Vehicle Emission Inspection Fund, established by section 2408, subsection 1, for capital costs and other appropriate expenditures to the contractor, as determined by the commissioner.

3. Inspection. A public emission inspection station shall inspect and reinspect motor vehicles in accordance with rules adopted under this chapter.

4. Issuance of certificate and reports. A public emission inspection station shall issue a certificate of compliance for a motor vehicle that has been inspected and determined to comply with the rules adopted under this chapter. If a certificate of compliance is not issued, the public emission inspection station shall provide a written inspection report describing the reasons for rejection and, when appropriate, the repairs recommended to bring the vehicle into compliance with the standards and criteria.

38 § 2405. Fleet emission inspection stations; license (REPEALED)

38 § 2406. Prohibited acts

1. Wrongful certification. A person may not issue a certificate of compliance for a motor vehicle that has not been inspected in accordance with this chapter or is not in compliance with the rules of the department.

2. **Wrongful waiver.** A person may not issue a certificate of waiver for a motor vehicle that has not been inspected in accordance with this chapter and has not met the criteria of section 2403, subsection 3.

3. **Falsification of certification.** A person may not falsely create, make, alter or complete a certificate of compliance or waiver.

4. **Alteration.** A person may not materially alter or change any equipment or mechanism of a motor vehicle that has been certified to comply with the rules of the department so that the vehicle is no longer in compliance with those rules.

5. **False repair costs.** A person or repair facility may not misrepresent to a public emission inspection station or the commissioner the estimated or actual repair costs or repairs needed to bring a motor vehicle into compliance with the rules of the department.

6. **Penalty.** In addition to any penalties under section 349, subsection 2, any person who violates this section is guilty of a Class D crime.

38 § 2407. Inspection fee

1. **Amount.** The board shall establish by rule an inspection fee to cover the cost of the inspection of a motor vehicle at a public emission inspection station, the cost of services rendered as part of the contract entered under section 2404, subsection 2 and the administrative costs of the department. The inspection fee may not exceed $24 per vehicle.

2. **Payment.** The fee must be paid for each motor vehicle inspected at a public emission inspection station at the time of inspection and is payable whether the vehicle passes inspection or not. Each vehicle that fails its initial inspection is entitled to one free inspection.

3. **Delinquency charge.** Motor vehicles inspected pursuant to this chapter after the expiration of the motor vehicle safety inspection date are subject to a delinquency charge of $10 for each month after the expiration, which must be collected by the inspection contractor and remitted to the commissioner. Revenue generated from the collection of delinquency charges must be deposited in the General Fund.

4. **Inspection fee waived.** The board shall establish, by rule, an exemption from the inspection fee under this section for those persons for whom, in its judgment, the fee poses an unreasonable economic burden. In establishing the rule, the board shall consult with the Maine Community Action Association and other representatives of low-income people. The Motor Vehicle Emission Fund must absorb all costs associated with this waiver.

38 § 2408. Motor Vehicle Emission Inspection Fund

1. **Establishment.** The Motor Vehicle Emission Inspection Fund, referred to in this section as the "fund," is established as a nonlapsing fund. The commissioner may use this fund only to pay the costs of and to administer the Motor Vehicle Emission Inspection Program and mobile source emission-related activities of the department.

2. Revenue sources. The revenue from the following sources must be deposited in the fund:

A. Money received by the commissioner in the form of gifts, grants, reimbursement or appropriations from any source intended to be used for the purpose of the fund;

B.

C. Interest attributable to investment of money deposited in the fund; and

D. Proceeds of inspection fees.

APPENDIX B

SELECT COMMITTEE MEETING AGENDAS

AGENDA

Tuesday, July 19, 1994
1:00 p.m., Room 228 State House

Opening Remarks and Charge to the Committee

- *President Dennis L. Dutremble*
- *Speaker Dan A. Gwadosky*

Background Briefing, Clean Air Act

- *Deborah Friedman*
  Office of Policy & Legal Analysis

Status, Experience with Motor Vehicle Emissions Testing Program

- *Debrah Richard*
  Acting Commissioner, Department of Environmental Protection
- *Ron Severance*
  Department of Environmental Protection
- *Robert Judge*, EPA Region I, Boston
- *Scott Bauman*, Systems Control, Inc.
- *Bill Dowling*, Bureau of Motor Vehicles,
  Department of Secretary of State

AGENDA

Thursday, July 21, 1994
1:30 p.m., Room 334 State House

Briefing and Discussion of Offset/Credit Issue

- Briefing by *Deborah Friedman*, OPLA
- Comments from *Debrah Richard*, DEP
- Comments from *John Devine*, Office of the Governor
- Comments from *Conrad Schneider*, Natural Resources Council of Maine
- Committee Discussion

AGENDA
Tuesday, July 26, 1994
9:00 a.m., Room 334 State House

Development of Committee Work Plan

- Define issues needing further study and establish goals/outcomes for committee work
- Form Subcommittees and Assign Tasks
- Establish tentative schedule for future meetings, public hearings, reporting deadlines
- Request Additional Written Information, Background Briefings for Next Meetings

Discussion of Formation of the RFP and Contract

- *Ron Severance and Jeff Crawford, DEP*
  (Formulation of Request for Proposals)
- *Dick Thompson, Bureau of Purchases*
  (Contract Review Process)
- *Sarah Roberts-Walton, Assistant Attorney General*
  (Contract Award Appeal)

AGENDA
Tuesday, August 23 and Wednesday, August 24, 1994
Room 334 State House

Brief Presentations

- Deborah Garrett, Deputy Commissioner, Department of Environmental Protection
- Jane Lincoln, Deputy Commissioner, Maine Department of Transportation
- Chris Hall, Maine Chamber of Commerce and Industry
- Sue Till, Maine Alliance
- Floyd Rutherford, Paper Industry Information Office
- Peter Merrill, Maine Oil Dealers Association
- Patty Aho, Maine Petroleum Association
- Tom Brown, Maine Auto Dealers Association

- Terry McKenney, Automotive Service Association of Maine
- Conrad Schneider, Natural Resources Council of Maine
- Bob Judge and Linda Murphy, U.S. Environmental Protection Agency

Committee Discussion

AGENDA
December 15, 1994
9:00 a.m., State House Room 437

1. Discussion of Assignment of Systems Control Contract

Deb Garrett, DEP, Acting Commissioner
Ron Severance, DEP

Comments on assignment of contract to SC Testing Technology, Inc., the Maine subsidiary of Systems Control, Inc. (description of the sale of Systems Control and DEP review of proposed contract assignment)

Leo Carroll, Vice President and Director of Marketing, Systems Control, Inc. is also available to answer questions on the change in ownership of Systems Control, Inc.

2. Brief Comments on Current Testing Program

Leo Carroll, Vice President and Director of Marketing, Systems Control, Inc.

Report on number of cars tested, operational changes

Jack Marino, General Manager of Maine's testing program is also available to answer questions

3. Committee Discussion

- Reformulated Gasoline
- Impact of EPA Flexibility Proposal
- Preparation of committee report to the 117th Legislature

#6521NRG

August 16, 1995
Possible Issues to Address with Bob Miller
(Based on Comments from Public Hearing)

- **Level of employee training**
  - Do we need more? Public relations?
  - Is CarTest willing to do more?
- **Qualifications & pay level for employees**
  - Do employees need higher level of knowledge than CarTest has sought?
  - Should pay level be higher? What incentives are there for employees to continue working there and improve their performance?
- **Payment for damage to vehicles**
  - How promptly have you paid people?
  - Who resolves the damage claims and how is it done?
- **Information to repair people**
  - We've heard complaints that CarTest doesn't explain how purge or pressure tests are done.
  - Is someone available to answer questions?
  - Is it true that garages can't buy the same equipment that CarTest uses?
- **Diagnostic information from test**
  - Why can't employees provide diagnostic information?
  - What would it cost to provide more information?
- **Public information**
  - What are you doing to improve public perception of the testing program?
  - How specifically have you responded to public concern about "revving engines" and inconsistency of test results?
- **Test station comfort**
  - Have you improved comfort? Complaints include "noisy, no seats, no rest rooms".
- **Relationship to Snap-On Tools**
  - Please explain. Why not a conflict of interest?
- **Changes to Program**
  - What damages might Systems Control allege if state suspends or cancels program? Or limits to certain areas?
- **Complaint process**
  - How often does DEP get involved with handling complaints?
- **Inconsistent test results**
  - Why? What can be done?

Deborah C. Friedman

Senate

Richard J. Carey, Kennebec, Chair
Georgette B. Berube, Androscoggin
Charles E. Summers, Cumberland

Deb Friedman, Legislative Analyst
John Kelley, Legislative Analyst

Paul F. Jacques, Waterville, Chair
Beverly C. Daggett, Augusta
Richard A. Gould, Greenville
Marge L. Kilkelly, Wiscasset
Herbert C. Adams, Portland
Carol A. Kontos, Windham
Malachi Anderson, Caribou
Rosalie H. Aikman, Poland
John F. Marsh, West Gardiner
Lawrence F. Nash, Camden

MAINE STATE LEGISLATURE
Augusta, Maine 04330

JOINT SELECT COMMITTEE TO REVIEW THE IMPLEMENTATION OF THE AUTO EMISSIONS INSPECTION PROGRAM

Subcommittees

A. Operations Subcommittee

Members: Rep. Beverly C. Daggett
Sen. Richard J. Carey
Rep. Paul F. Jacques
Sen. Charles E. Summers
Rep. Lawrence F. Nash
Rep. Richard A. Gould
Rep. Malachi Anderson
Rep. Marge L. Kilkelly

Staff: John Kelley, OPLA (287-1670)

Subject Matter

Contractor performance issues (complaint process (1-800 #; information to legislators; qualifications and training of employees)

Registration & suspension process (is the letter to the public understandable? do town clerks understand the process and the requirements for registration?)

Waivers (how is eligibility for the 5,000 mile waiver determined? waiver documentation)

Transferability of compliance certificate (used car transfers)

State House Station 115, Augusta, Maine 04333, Telephone: 207-287-1692

B. Auto technicians/ Repairs Subcommittee

Members: Rep. Marge L. Kilkelly
Sen. Richard J. Carey
Rep. Paul F. Jacques
Rep. John F. Marsh
Rep. Malachi Anderson

Staff: John Kelley, OPLA (287-1670)

Subject Matter

$450 repair limit

Can local garages do test?

Training and certification of auto technicians

C. Air Quality/Program Coverage/Emissions Credit Subcommittee

Members: Rep. John F. Marsh
Sen. Richard J. Carey
Rep. Paul F. Jacques
Sen. Charles E. Summers
Rep. Rosalie H. Aikman
Rep. Herbert C. Adams
Rep. Carol A. Kontos

Staff: Deborah Friedman, OPLA (287-1670)

Subject Matter

Should the auto emissions inspection program be extended statewide? limited to the metropolitan areas?

Should trucks and buses be included in the inspection program? How are trucks and buses regulated, what additional regulations should be enacted, and what additional regulations are planned by EPA or DEP?

What vehicles should be exempt?

What is the quality of Maine's air, statewide? (monitoring information from nonattainment and attainment areas of the state)

Are there other options for meeting federal standards?

What should be done about potential emission credits created by auto emissions testing? Are there really "extra" reductions or are the reductions needed to meet air quality standards? Who should get credits? What process should be used to determine who gets credits?

JOINT SELECT COMMITTEE TO STUDY IMPLEMENTATION OF THE AUTO EMISSIONS INSPECTION PROGRAM

Public hearing schedule

AUGUST, 1994

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
7	8 **YORK COUNTY** Kennebunk H.S. **Kennebunk**	9 **KENNEBEC COUNTY** Augusta Civic Center **Augusta**	10 **ANDRO-SCOGGIN COUNTY** Multi-Purpose Center **Lewiston**	11 **CUMBERLAND COUNTY** Scarborough Town Office **Scarborough**	12	13
14	15 **SAGADAHOC COUNTY** Mt. Ararat H.S. **Topsham**	16	17 **LINCOLN COUNTY** Wiscasset H.S. **Wiscasset**	18 **KNOX COUNTY** Thomaston Grammar School **Thomaston**	19	20

(All Hearings are held from 2 - 4 P.M. and 6 - 8 P.M. in Each Location)

APPENDIX C

The Federal Clean Air Act and Motor Vehicle Emissions Testing

Maine's ozone problem

- Nine Maine counties fail to meet federal health-based standards for **ozone** ** 1
  - 7 counties are in "moderate nonattainment" of the federal ozone standard;
  - 2 counties are in "marginal nonattainment" ** 2

Federal requirements

- The federal Clean Air Act Amendments of 1990 (CAAA90) require states with moderate ozone nonattainment areas to:
  - Impose strict emissions standards on new and existing industries and other "stationary sources" in nonattainment areas ** 3
  - Refuse to license emissions from new or expanded industries unless reductions ("offsets") greater than the new emissions are made elsewhere
  - Reduce emissions of ozone-causing Volatile Organic Compounds (VOC's) in the moderate nonattainment area by 15% by 1996, using any combination of controls ** 4
  - Operate a motor vehicle emission inspection program

Inspection and maintenance program

- The motor vehicle inspection and maintenance program (I&M) was enacted in Maine in 1992 and amended in 1993.
- The program is **required** in certain areas of the state by federal law and has been imposed as an **option** in other areas to comply with the 15% VOC reduction requirement
  - Maine is **required** to operate the enhanced I&M program in the Portland metropolitan area and the Kittery-Portsmouth area and to operate a basic program in the Lewiston-Auburn metropolitan area
  - Maine has **opted** to extend the enhanced program to the entire moderate nonattainment area; DEP expects this program to result in almost one-third of the required 15% VOC reduction in the moderate nonattainment area
- Operational details of the I & M program are governed by federal law and regulations**5, state law and rules, and the contract with Systems Control, Inc.

1

Changing the I & M program

- Consequences of **changing operational details** of the program depend on whether details are governed by federal law, state law or contract

- **Limiting** the I&M program to the minimum required area would require Maine to adopt **alternative controls** to reduce VOC by 15% and may raise **contract problems**

- **Delay** of the program up to 1/95 may raise **contract** problems; delay past 1/1/95 would violate **CAAA90** and may cause **contract** problems

- **Elimination** of the program would **violate CAAA,** require adoption of **alternative controls,** cause **loss of emission reduction credits** that allow licensing of new or expanded industry, and cause **contract** problems

Consequences of violating CAA

- Failure to operate a program required by CAAA90 or to achieve the 15% VOC emission reduction requires the Administrator of EPA to:

  - Deny federal highway funds (up to $70 million in Maine), except funds for certain safety, mass transit and air quality projects

  - Increase the offset requirement for licensing new or expanded industry to 2:1

- Failure to adequately plan to bring the state into compliance with ozone standards may result in federal takeover of the state's air regulation program and imposition of a federal implementation plan

NOTES

1. Ozone, also called smog, forms when volatile organic compounds (VOC's) combine with nitrogen oxides (NOx) in the presence of sunlight. Most ozone problems occur on hot, humid days. Ozone is a lung irritant, and is especially harmful to children, the elderly, and persons with lung disease. Volatile organic compounds, or hydrocarbons, are released into the air through the evaporation or burning of gasoline and other fuels, and through use of chemicals such as paints and degreasing solvents. Approximately 40% of manmade VOC emissions come from motor vehicles. Nitrogen oxides are produced primarily through fuel combustion by motor vehicles, power plants and industrial boilers. Approximately 35% of NOx emissions come from motor vehicles.

2. Androscoggin, Cumberland, Kennebec, Knox, Lincoln, Sagadahoc and York counties are moderate nonattainment areas. Hancock and Waldo counties are marginal nonattainment areas.

3. The Clean Air Act lists Maine as a member of the Northeast Ozone Transport Region (OTR). Because Maine is a member of the OTR, some requirements that apply to nonattainment areas are extended statewide. The I & M program is **not** one of these programs. However, membership in the OTR requires Maine's program to be an enhanced program, rather than a basic program.

4. The DEP has recommended that Maine use the following programs to meet its 15% reduction requirement: extension of the I & M program beyond its minimum required coverage, use of reformulated gasoline, gas station vapor recovery programs and controls on industry emitters of VOCs. Loss of those programs would require use of alternative programs that, according to the DEP, would cost up to $5,000 per ton of reduced emissions (Compared to the estimated cost of $500 per ton of reduced emissions for the I & M program). Alternatives include imposing strict VOC emission controls on smaller businesses (current regulations apply to sources that emit more than 40 tons/year) or strict regulation of different types of businesses.

5. Federal law requires computerized emissions testing with back-up on-road testing, checks of the vehicle's on-board diagnostic system and fuel system; expenditure of $450 for repairs to qualify for waiver (excluding warranty-covered repairs and tampering related repairs); enforcement of the testing requirement through denial of registration; annual, centralized testing, unless the state can demonstrate equal effectiveness. Federal regulations require the program to meet a performance standard based on a model program with the following elements: annual testing of all 1968 and newer cars and light duty trucks, beginning in 1995; transient mass emission testing with the IM240 driving cycle on 1986 and newer vehicles, two speed testing of 1981-1985 vehicles and idle testing of pre-1981 vehicles; emission standards as specified in the regulation; visual inspection of the emissions control devices and testing of the car's fuel distribution systems to guard against leaks and other failures; quality control programs such as overt and covert audits; and inspector training and certification

Prepared by Office of Policy and Legal Analysis, June 1994

APPENDIX D

SOURCE: Maine Department of Environmental Protection, 1993 Annual Air Quality Report

TABLE 3-1
1993 OZONE DATA SUMMARY
(Parts Per Million)

SITE	ADDRESS	NUMBER OF OBSERVATIONS	HOURLY CONCENTRATIONS HIGHEST	2ND HIGH	NUMBER OF VIOLATIONS STATE*	FEDERAL**
CUMBERLAND COUNTY						
Cape Elizabeth	Shelter Site	4798	0.122	0.116	83	0
HANCOCK COUNTY						
Acadia National Park	McFarland Hill Ranger Station	7645	0.112	0.104	38	0
KENNEBEC COUNTY						
Gardiner	Pray Street School	4878	0.098	0.096	21	0
KNOX COUNTY						
Isle Au Haut	Isle Au Haut Fire Station	4629	0.115	0.113	33	0
Port Clyde	Port Clyde Ozone	4248	0.131	0.122	49	0
OXFORD COUNTY						
Lovell	Route #5	4051	0.083	0.080	0	0
PENOBSCOT COUNTY						
Holden	Summit of Rider Bluff	3195	0.104	0.099	29	0
PISCATAQUIS COUNTY						
Greenville	Greenville Municipal Airport	1430	0.067	0.063	0	0
SAGADAHOC COUNTY						
Phippsburg	Navy Road	2529	0.132	0.126	72	2
SOMERSET COUNTY						
Skowhegan	Somerset Mill	4901	0.099	0.098	14	0
WASHINGTON COUNTY						
Jonesport	Public Landing	4820	0.105	0.103	18	0
YORK COUNTY						
Kennebunkport	Parson's Way	3822	0.134	0.127	112	2

* Total number of hours minus one greater than .081 ppm.
** Number of days with an hour that exceeds .12 ppm. Not a statistical estimate.

TABLE 3-4
YEARLY STATE OZONE STANDARD EXCEEDANCE DAYS COMPARISON
STATE OF MAINE

	YEAR														
MONTH	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	AVERAGE
APRIL	1	0	5	1	1	0	0	0	0	0	1	1	0	0	0.71
MAY	3	4	5	2	3	6	2	3	6	2	1	5	6	1	3.50
JUNE	10	4	2	9	11	9	7	7	12	4	8	7	8	6	7.43
JULY	15	4	12	15	16	19	6	5	18	6	8	12	4	7	10.50
AUGUST	7	9	7	9	11	10	3	8	12	8	6	11	7	8	8.29
SEPTEMBER	2	1	2	12	5	6	2	3	3	6	4	2	4	3	3.93
OCTOBER	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.07
TOTALS	38	22	33	48	47	50	20	26	51	26	29	38	29	25	34.43
# OF SITES	7	6	8	6	6	8	9	10	9	9	9	11	14	13	

TABLE 3-5
YEARLY FEDERAL OZONE STANDARD EXCEEDANCE DAYS COMPARISON
STATE OF MAINE

	YEAR														
MONTH	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	AVERAGE
APRIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
MAY	0	3	0	0	0	1	0	0	1	0	0	0	1	0	0.43
JUNE	1	1	0	1	2	0	0	1	5	0	1	3	0	0	1.07
JULY	4	0	4	3	6	2	1	1	6	3	1	3	0	3	2.64
AUGUST	2	2	0	3	4	3	1	3	7	0	3	1	1	1	2.21
SEPTEMBER	0	0	1	3	0	0	0	0	0	1	0	0	0	0	0.36
OCTOBER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTALS	7	6	5	10	12	6	2	5	19	4	5	7	2	4	6.71
# OF SITES	7	6	8	6	6	8	9	10	9	9	9	11	14	13	

TABLE 3 - 2
OZONE HISTORICAL COMPARISONS
(1-Hour Concentrations)

CAPE ELIZABETH
Shelter Site

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1978	.160 PPM	202
1979	.155 PPM	116
1980	.178 PPM	141
1981	.122 PPM	98
1982	.140 PPM	117
1983	.163 PPM	187
1984	.146 PPM	148
1985	.165 PPM	141
1986	.128 PPM	68
1987	.152 PPM	76
1988	.168 PPM	269
1989	.136 PPM	81
1990	.144 PPM	69
1991	.141 PPM	146
1992	.125 PPM	99
1993	.116 PPM	83

KENNEBUNKPORT
Parson's Way

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1982	.120 PPM	42
1983	.148 PPM	149
1984	.147 PPM	184
1985	.168 PPM	190
1986	.138 PPM	62
1987	.145 PPM	67
1988	.168 PPM	230
1989	.147 PPM	103
1990	.162 PPM	111
1991	.150 PPM	119
1992	.127 PPM	111
1993	.127 PPM	112

JONESPORT
Public Landing

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1989	.099 PPM	18
1990	.106 PPM	17
1991	.117 PPM	69
1992	.103 PPM	37
1993	.103 PPM	18

GARDINER
Gardiner H.S./Pray Street School

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1980	.117 PPM	54
1981	.122 PPM	31
1982	.120 PPM	56
1983	.140 PPM	99
1984	.112 PPM	89
1985	.133 PPM	84
1986	.110 PPM	17
1987	.112 PPM	25
1988	.145 PPM	142
1989	.118 PPM	47
1990	.107 PPM	35
1991	.123 PPM	49
1992	.111 PPM	51
1993	.096 PPM	21

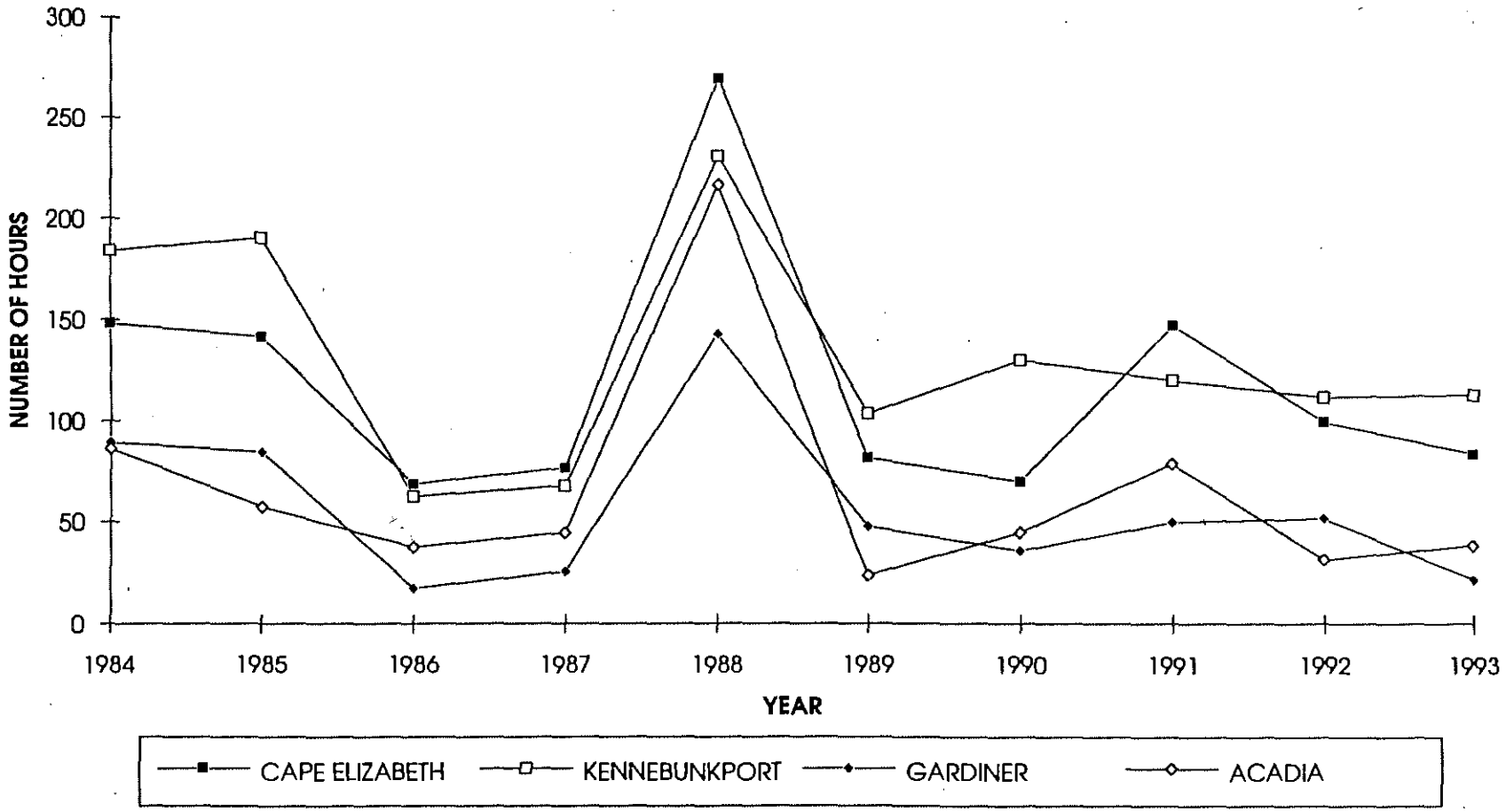
ACADIA
McFarland Hill Ranger Station

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1983	.135 PPM	98
1984	.130 PPM	86
1985	.117 PPM	57
1986	.108 PPM	37
1987	.126 PPM	44
1988	.153 PPM	216
1989	.113 PPM	23
1990	.118 PPM	44
1991	.125 PPM	78
1992	.105 PPM	31
1993	.104 PPM	38

ISLE AU HAUT
Isle Au Haut Fire Station

YEAR	SECOND HIGH	# OF STATE VIOLATIONS
1986	.107 PPM	26
1987	.151 PPM	87
1988	.185 PPM	111
1989	.115 PPM	35
1990	.131 PPM	55
1991	.136 PPM	123
1992	.109 PPM	79
1993	.113 PPM	33

FIGURE 1-5
OZONE TRENDS - HOURS OF STATE VIOLATION



APPENDIX E

STATE OF MAINE
Department of Environmental Protection

MAIN OFFICE: RAY BUILDING, HOSPITAL STREET, AUGUSTA
MAIL ADDRESS: State House Station 17, Augusta, 04333
207-289-7688

JOHN R. McKERNAN, JR.
GOVERNOR

DEAN C. MARRIOTT
COMMISSIONER

MEMORANDUM

TO: Richard B. Thompson, Director, Bureau of Purchases

FROM: Jeffrey Crawford/Ronald Severance, Bureau of Air Quality Control

DATE: April 14. 1993

RE: Maine Motor Vehicle Emission Inspection Program Contract Award

** *** ** *** ** *** ** *** ** *** ** *** ** *** ** *** ** *** ** *** ** *** **

Attached please find :

1. Copies of award notification to bidders;
2. Supporting justification for the award;
3. Individual and summarized scoring results; and
4. Description of Contractor selection process.

The Contractor Selection Process

The Proposal Review Committee (Committee)

The proposal review committee was composed of the following eight members:

1. Brooke Barnes, Director of Policy and Procedures, Department of Environmental Protection

2. Leighton Carver, Director, Division of Field Services, Bureau of Air Quality Control

3. Jeffrey Crawford, Division of Technical Services, Bureau of Air Quality Control

4. William Dowling, Assistant Deputy Secretary of State, Bureau of Motor Vehicles

5. Jon Lund, Natural Resources Council of Maine

6. Arthur Marin, Northeast States for Coordinated Air Use Management

7. Ron Severance, Division of Technical Services, Bureau of Air Quality Control

8. Carol Tracy, Maine Board of Environmental Protection

The Scoring Protocol

Proposals were evaluated using the weighted criteria contained within Section 1 (B) of the RFP. Since a number of subcategories were subsumed within each major division, the Committee assigned a potential maximum number of points to each subcategory, thereby providing a more consistent assignation of points within each major division. For example, within the major division of "Bidder Qualifications", the subcategories of "Specific Related Ability", "Financial Depth and Capability", and Probability of Successful Performance" were assigned 100, 75, and 75 points respectively, for a maximum total of 250 points.

The points for each subcategory represent the maximum possible award, with the maximum score awarded to only a truly outstanding proposal. Merely satisfying the RFP requirements was not grounds for awarding the maximum possible score. Failures to address RFP requirements or deficient proposals were likewise discounted.

The "Bid Price" category was calculated using the formula:

$$\text{Score} = \text{low bid/bid considered X } 250$$

Using this formula, all reviewers assigned the same respective scores for the price component.

Committee Meetings

The Committee held five weekly meetings over the course of the review period. During these meetings, Committee members reviewed and compared the various submissions. The strengths and weaknesses of each proposal were reviewed, along with any additional concerns regarding the proposals. Meetings began on March 5, 1993, and continued on a weekly basis until April 1, 1993, at which time the Committee submitted and tallied their final written scores, choosing a final candidate for interview.

The Interview

The interview was designed to provide delegated Committee members with an opportunity to discuss the final candidate's proposal prior to the actual announcement of award and subsequent contract negotiation. For this interview, the Committee provided the bidder with several topics for discussion. In the event that significant problems arose, the Committee would re-consider its selection and elect to interview the next highest scoring bidder.

Bid Summaries

Network Design

	Marta	Systems C.	Hamilton	ESP
York	Wells	Kennebunk	Sanford	Kennebunk
Cumberland	Westbrook	Westbrook	Portland	Westbrook
Sagadahoc	Topsham	Topsham	Topsham	Brunswick
Androscoggin	Lisbon Falls	Lewiston	Lewiston	Auburn
Lincoln	Newcasle	Wiscasset	Newcastle	Damariscotta
Kennebec	Augusta	Augusta	Augusta	Augusta
Knox	Thomaston	Rockland	Thomaston	Warren
throughput design	10	12.64	12	10.4
lane efficiency	65	49	48.2	50

Operating hours

	Marta	Systems C.	Hamilton	ESP
Monday	closed	8-7 (11)	8-8 (12)	8-6 (10)
Tuesday	8-6 (10)	8-5 (9)	8-5 (9)	8-6 (10)
Wednesday	8-9 (13)	8-7 (11)	8-8 (12)	8-6 (10)
Thursday	8-6 (10)	8-5 (9)	8-5 (9)	8-7 (11)
Friday	8-6 (10)	8-5 (9)	8-5 (9)	8-6 (10)
Saturday	8-1 (5)	8-1 (5)	closed	8-1 (5)
TOTAL	48	54	51	56

Bid Summary

Facility Design	Systems C.	Hamilton	ESP	MARTA
Waiver Area	separate	seoparate	separate	inspection lane
Lane Length	82'	55'	65'	60'
Large Vehicle Bays	all	1/station	all	all
Customer Service Area	yes	yes	yes	yes
State Office	yes	no	no	yes
# Inspectors/Lane	3	2	2	2
Equipment Design				
OBD Device	Balco	Balco	unspecified (ESP?)	Balco
Lane Aids (to locate emission control related components for purge and waivers)	yes	yes (waivers)	no	no
Optional Pressure Test	yes	no	yes	no
Optional Purge test	yes	no	yes	no
Dynamometer	Mustang	Mustang	ESP	Mustang
Cooling Fan (placement)	manual	auto	auto	auto
Driver's Pendant	ceiling mount	radio	radio	radio

BID SUMMARY

	SC	MARTA	ESP	Hamilton
QA/QC	All programs must adhere to EPA requirements			
Liability/indemnification insurance	yes	yes	yes	yes
Performance bond	yes	yes	yes	yes
Repair status reports	yes	yes	yes	yes
Winter operational procedures	yes	yes	no	yes
Complaint resolution	detailed discussion	limited discussion	no discussion	detailed discussion
Recall	yes	yes	yes	yes
Waiver certification	detailed discussion	very limited discussion	limited discussion	detailed discussion
Public Education				
test notice	no	no	no	yes
budget	2,545,437	381,000	643,400	880,805
radio	yes	yes	yes	no
print	yes	yes	yes	yes
TV	yes	no	yes	no
PSA	yes	yes	yes	yes
hotline	2-persons full program	1 person 1st year(2?)	1 person full program	1 person full program
public relations manager	yes	no	yes	no
mechanic training (Technical College-level training)	no	no	yes	no

BID SUMMARY

	SC	MARTA	ESP	Hamilton
Cuurent programs (Centralized)	WA	FL	AZ,FL,KY	MN,WI,CT, IL,MN,B.C. FL,OH,TN MD
Prior programs (Centralized)	MD,IL,FL MN	TN		AZ
Currently testing	@1 million (7.4 mil. until April, '92)	.5 mil.	5 mil.	11.5 mil.
Ownership	Snap-On Tools	Allen Group	Privately held	Envirotest Systems, Inc. (Public offerings forthcoming)

Economic Impact

Systems Control:	$31.26 million in facilties ($13.5), salaries ($13.56 mil.) purchases, contracts ($4.2 mil.) taxes ($2.1 mil.). 212 Maine jobs.(multiplier not used)
Hamilton	$41.6 million in construction ($8 mil.), payroll ($21 mil.) taxes ($1.6 mil.), other ($11mil.). 145 Maine jobs. (multiplied impact is $66.5 million)
ESP	no estimate
MARTA	no estimate

Evaluation Worksheet

for

the

Maine Motor Vehicle Emission Inspection Program

Bidder Qualifications **250 points total**

	Points	ESP	HT	MARTA	SC
Specific Related Ability	100	60	90	50	90
Financial Depth and Capability	75	40	50	60	70
Probability of Successful Performance	75	50	60	40	70

Inspection Network Design **50 points total**

	Points	ESP	HT	MARTA	SC
Convenience/ Accessibility	25	25	20	12	20
Design Rationale	25	15	25	20	20

Inspection Facilities **100 points total**

	Points	ESP	HT	MARTA	SC
Facility Design	40	15	15	20	40
Expansion Capability	10	7	7	7	10
Site Design and Acquisition Plan	30	20	15	15	30
Public Interface	20	15	10	20	20

Systems Hardware and Software **100 points total**

	Points	ESP	HT	MARTA	SC
Data Management/ Computer Systems	40	40	35	20	20
Test Equipment/ Automation	30	30	30	30	30
System Management	30	30	20	15	30

Operating Procedures **100 points total**

	Points	ESP	HT	MARTA	SC
Operating Procedures	50	35	40	25	50
State Interface (Public Relations)	50	30	40	25	50

Program Organization and Management **150 points total**

	Points	ESP	HT	MARTA	SC
Personnel and Team Structure	45	40	35	25	40
Project Plan and Schedule	50	30	25	40	50
Training and Staffing Plan	45	45	40	35	30
Economic Impact to the State	10	5	10	5	10

Bid Price **250 points total**

	Points
ESP	156
HT	198
MARTA	250
SC	200

NOTE: Points were awarded by using the following formula:

low bid/bid considered X 250 = score

Bid prices were calculated using Department volume estimates and exclude Waldo and Hancock counties

	ESP	HT	MARTA	SC
Total Points	688	765	714	880

Reviewer: Ronald Severance Signature: Ronald Severance

Date: April 1, 1993

	ESP		HT		MARTA		SC	
BIDDER QUALIFICATIONS 250 POINTS	150	175	200	240	150	205	230	230
	145	180	185	210	135	210	220	235
	160	165	215	220	185	220	220	245
	110	165	190	200	175	160	230	225
NETWORK DESIGN 50 POINTS	40	45	45	45	32	40	40	46
	39	30	40	43	33	38	45	46
	35	45	35	35	35	35	35	45
	40	40	25	40	30	25	35	40
INSPECTION FACILITIES 100 POINTS	57	52	47	59	62	55	100	73
	64	68	74	68	56	66	85	89
	63	73	71	88	63	73	88	80
	35	80	50	85	35	70	95	98
HARDWARE SOFTWARE 100 POINTS	100	93	85	102	65	80	80	96
	82	89	79	86	50	76	77	81
	85	90	75	88	70	70	65	80
	85	95	70	95	55	60	75	80
OPERATING PROCEDURES 100 POINTS	65	84	80	89	50	77	100	90
	85	85	80	88	67	70	85	89
	75	60	75	70	55	60	85	90
	55	75	55	90	45	60	70	80
ORGANIZATION MANAGEMENT 150 POINTS	120	130	110	136	105	130	130	167
	117	120	116	121	91	114	128	124
	117	107	123	125	105	97	128	135
	92	120	98	130	92	120	118	135
BID PRICE 250 POINTS		1,248		1,584		2,000		1,600
TOTAL		5,538		6,360		6,052		6,863
AVERAGE SCORE		692		795		757		858

SC SYSTEMS CONTROL
Maine Program

POSITION INFORMATION
AS OF 8/17/94

Position Title	Number	Full Time-Part Time	Turnover % since 7/1/94	Salary
General Manager	1	Full	0	42.9 - 57.7/k
Finance Manager	1	Full	0	33.2 - 44.7/k
Operations Manager	1	Full	0	27.9 - 37.5/k
Technical Support Manager	1	Full	100%	31.2 - 41.8/k
Data Processing Supervisor	1	Full	0	29.1 - 39/k
Personnel Supervisor & Office Manager	1	Full	0	26.0 - 34.9/k
Public Information Officer	1	Consultant	Consultant	24.9 - 27.5/k
Station Managers	7	Full	14%	20.0 - 26.9/k
Assistant Station Managers	7	Full	28.5%	14.5 - 20.0/k
Equipment Technician	2	Full	0	21.8 - 29.0/k
Facilities Technician	1	Full	0	14.5 - 20.0/k
Accounting Assistant	1	Full	0	15.6 - 20.9/k
Computer Operator	1	Full	0	16.6 - 22.3/k
Hot Line Operators	2	Full	0	11.4 - 14.5/k
Receptionist	1	Full	0	13.5 - 18.0/k
Lead Inspectors	8	Part Time	0	5.50/hr.
Inspectors	142	Part Time	35%	4.85/hr.

Total number of employees = 179, including 150 part time positions, 28 full time positions and 1 consulting position.

APPENDIX F

MICHAEL E. CARPENTER
ATTORNEY GENERAL

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FAX: (207) 287-3145

STATE OF MAINE
DEPARTMENT OF THE ATTORNEY GENERAL
STATE HOUSE STATION 6
AUGUSTA, MAINE 04333

REGIONAL OFFICES:
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TEL: (207) 941-3070

59 PREBLE STREET
PORTLAND, MAINE 04101-3014
TEL: (207) 822-0260

August 9, 1994

Senator Richard J. Carey
State Senate
State House Station #3
Augusta, Maine 04333

Re: Maine's Motor Vehicle Emissions Inspection Program

Dear Senator Carey:

This is in response to your August 3, 1994 letter to Attorney General Carpenter in which you asked four questions concerning Maine's Motor Vehicle Emissions Inspection Program.

QUESTION 1: "Were the State to repeal its inspection and maintenance program, what would be the consequences under the Federal Clean Air Act?"

RESPONSE: Under the Federal Clean Air Act, there are four possible consequences of repealing or suspending the program: (1) imposition of a 2-to-1 emissions offset requirement for newly constructed or modified major sources of air emissions; (2) loss of federal highway funds; (3) imposition of a federal implementation plan; and (4) loss of federal funds for state air pollution planning and control programs.

A recent federal rule indicates that when applying mandatory sanctions under the Clean Air Act, EPA will first impose the 2-to-1 offset sanction and then, six months later, impose the highway funds sanction. If the Administrator of EPA finds a lack of good faith on the part of the State, then both the 2-to-1 offset and the highway fund sanction shall apply until the Administrator determines that the State has come into compliance. In addition to the imposition of mandatory sanctions under the Clean Air Act, federal law also gives EPA discretionary authority to impose sanctions at any time (or any time after) EPA finds inadequacies in the state implementation plan.

The Clean Air Act requires EPA to promulgate a federal implementation plan to correct inadequacies in the state implementation plan at any time within two years after a finding by the EPA that the state implementation plan is inadequate. In addition to any other sanction, EPA also has the discretionary authority to withhold all or part of the grants for support of state air pollution planning and control programs.

In short, because federal law provides several different types of sanctions in the event of noncompliance with Clean Air Act requirements and gives EPA considerable discretion as to the timing and sequence of imposing those sanctions, it is difficult to predict exactly what would occur if the Maine suspended or repealed the program. If the Committee wishes to obtain more guidance about EPA's intent concerning the selection and timing of sanctions that might be imposed in Maine, I recommend that you consult EPA officials directly. If you wish to determine the fiscal impact on the State of Maine of the imposition of the highway funds sanction or the loss of federal funds for the support of state air pollution planning and control programs, you may wish to consult with representatives of the Maine Department of Transportation and the Maine Department of Environmental Protection.

QUESTION 2: "Were the State to suspend the program, what would be the consequences under the Federal Clean Air Act?"

RESPONSE: See response to Question 1.

QUESTION 3: "If, as a result of the State repealing or suspending the program, the federal Environmental Protection Agency instituted the program, what would be the federal agency's responsibilities for the current contract with Systems Control, Inc., the firm that operates the inspection stations?"

RESPONSE: Under such circumstances, EPA would have no responsibility for the current contract with Systems Control, Inc.

QUESTION 4: "If the State repealed or suspended the program, what would be the State's responsibilities for the current contract with Systems Control, Inc.?"

RESPONSE: If the State repealed or suspended the program, there is a substantial probability that Systems Control would request arbitration and/or file a lawsuit seeking damages and injunctive relief. It would then be up to the arbitrator or court to determine whether the State had any responsibility under the contract and the extent of any such responsibility. There are a number of clauses in the contract that would be at issue in such a case, however, and it is impossible to determine how the arbitrator or court would rule.

Sincerely,

MICHAEL E. CARPENTER
Attorney General

MEC/aw
cc: Debrah Richard, Acting Commissioner, DEP
Dennis Keschl, Air Bureau Director, DEP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION BUILDING
STATE HOUSE STATION 16 AUGUSTA, MAINE 04333-0016

DANA F. CONNORS
Commissioner

August 22, 1994

Joint Committee to Review the Implementation
of the Auto Emission Inspection Program
State House Station #13
Augusta, Maine 04333

Dear Senator Carey, Representative Jacques and Members of the Committee to Review the Implementation of the Auto Emission Inspection Program:

Over the past several months, you've received various information concerning highway funding sanctions which would be imposed by the Federal Environmental protection Agency (EPA) as a result of noncompliance with the Clean Air Act Amendments of 1990 (CAAA) and related regulations. Due to the confusion and complexity of the law and regulations, I am writing to clarify the Maine Department of Transportation's (MDOT's) understanding of highway funding sanctions. The following has been based upon federal law and conversations with federal officials, and regulations issued to assist the EPA in enforcing the law, excerpts attached. In addition, I've offered information regarding the impact on MDOT's Statewide Transportation Investment Program (STIP) should a 15% Reduction SIP not be submitted and approved by November 1994.

BROAD AUTHORITY

First, I should stress that the EPA was given broad authority and discretion to ensure States' compliance with the CAAA. The sanctions which can be imposed are severe and were intended to represent a very big club for EPA's use. Imposition of the highway funding sanction will result in the withholding of nearly all federal highway funds for a geographic region or can be applied statewide. The following will also describe when mandatory vs. discretionary sanctions are applied.

NONATTAINMENT AREA VS. STATEWIDE SANCTIONS

The sanction applies to the withholding of federal funds associated with the vast majority of MDOT activities, such as highway resurfacing and reconstruction, and bridge rehabilitation and replacement. The only project funds exempt from being withheld are those designated as safety projects, transit projects funded through FTA, and those which reduce emissions.

The funding amount of these sanctions is contingent upon when they are imposed, how long they are imposed and over what geographic area they are imposed. The following presents potential highway funding impacts for sanctions imposed on the nonattainment area or statewide.

Statewide - Should sanctions be applied on a statewide basis, this could amount to approximately **$72 Million** annually. This is based on our traditional federal program of approximately $80 Million annually minus approximately $8 Million in exempt projects. This amount excludes funds associated with Maine's federally funded demonstration projects, the Portland-South Portland Bridge, Brunswick-Topsham Bypass and Waterville-Winslow Bridge, which we estimate as an additional $66.5 million during federal fiscal 95, which would also be at risk should sanctions be imposed.

Nonattainment - If the sanction is applied in the moderate nonattainment area only (i.e. the 7 county region), this could amount to the withholding of over **$35 Million** annually. Demonstration project funds in nonattainment areas would also be withheld.

MANDATORY VS. DISCRETIONARY SANCTIONS

The EPA can impose highway funding sanctions through mandatory or discretionary actions depending on the circumstances of noncompliance or lack of good faith by a state in meeting CAAA requirements, as follows:

The **mandatory** transportation sanction -
- *imposed 24 months after official EPA notice of deficiency
- *would likely apply to the nonattainment area only

The **discretionary** transportation sanction -
- *can be imposed anytime upon a "lack of good faith" by a state
- *can be applied to the nonattainment areas or statewide

SANCTION FOR NONCOMPLIANCE WITH I&M PROGRAM

If the Inspection Maintenance program were repealed, the EPA has the discretion to impose discretionary sanctions due to a lack of good faith in meeting CAAA requirements. In order to apply this sanction, the EPA would be required to go through a formal notice and comment period in the Federal Register which would take roughly 90 days. It would appear from the flexibility in discretionary sanction language (attached) the EPA could apply this sanction to the nonattainment area or statewide. Again, if applied statewide, the sanctions could amount to $72 Million annually plus demonstration project funds, and if applied in the nonattainment area, to over $35 Million plus demonstration project funds.

While we understand some adjustments should be made to the Inspection maintenance Program, MDOT strongly supports the program as a whole as the most cost effective way to achieve required emission reductions. While I cannot speak for the EPA as to when and how they may or may not impose these sanctions, they have been given incredible power and authority under the existing laws and regulations. Should these highway sanctions ever be applied, the effects on both the economy and the transportation system would be devastating.

MDOT STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

In order to spend federal funds, the MDOT is now required to develop and submit for federal approval a document referred to as a STIP. That STIP identifies all projects and associated federal funds anticipated for a 3-year period. MDOT is also required to perform a clean air conformity analysis on the STIP to ensure no increase in emissions as a result of implementation of the STIP.

If a 15% VOC reduction plan is not submitted and approved by November 1994, MDOT will lose its authorization under the 3-year STIP and with it, authority to spend federal funds on certain projects. Unlike highway sanctions, most projects i.e. resurfacing, safety, bridge rehabilitation etc., would be allowed to move forward. Projects that increase capacity, such as additional travel lanes and intersection improvements would be held in abeyance, with no further approval of federal funds, until such time as the 15% plan is approved and a STIP resubmitted and approved.

Please let me know if we can provide and further information to the committee.

Sincerely,

Jane L. Lincoln

Jane L. Lincoln
Deputy Commissioner

JLL/cab

CC: Dana F. Connors, Commissioner
Governor's Office
BAQ, DEP

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION ONE

EDMUND S. MUSKIE FEDERAL BUILDING, ROOM 614
40 WESTERN AVENUE
AUGUSTA, MAINE 04330

August 17, 1994

IN REPLY REFER TO:
HEC-ME

Joint Committee to Review the Implementation
of the Auto Emission Inspection Program
State House Station #13
Augusta, Maine 04333

Attention: John Marsh

Dear Mr. Marsh

As a resident of Brunswick, I attended a public hearing held in Topsham on the evening of August 15. I was most impressed with the manner that the Committee conducted the hearing.

Most of the comments and concerns expressed were on issues related to the emissions testing program recently enacted in Maine. There were, however, several statements made during the hearing which suggested a lack of clear understanding or incorrect interpretation of the potential impact of the sanction process should EPA not approve Maine's SIP or should the recently enacted I/M program be repealed. You suggested that I may wish to provide the Committee with accurate information on the potential or likely impact of the sanctions on future Federal-aid highway funding.

There are two types of CAAA related highway sanctions: Mandatory and discretionary. EPA will unilaterally determine the amounts and geographical extent of such sanctions. Although EPA has discretion in its application of the sanctions, in Maine it is highly likely that these sanctions would apply Statewide.

- The mandatory highway sanction would occur 24 months after an EPA official notice of deficiency (assuming the deficiency was not corrected within that timeframe).

- The discretionary highway sanction is available to EPA anytime they feel the State is not making a good faith effort.

The highway sanction which would likely apply if the Inspection Maintenance Program were repealed is the discretionary sanction. In order to apply this sanction EPA would be required to go through a formal notice and comment in the Federal Register. This process would likely require 90 days to complete

<u>Highway Sanction Financial Impact on MDOT</u>

This sanction applies to the majority of the Federal-aid highway projects in Maine. It would

apply to all projects except those which are considered exempt from sanctions. The following types of projects would not be impacted:

Projects Exempt from Sanctions:

Safety Projects whose principal purpose is to improve safety by reducing the frequency and/or severity of accidents;

Public Transit projects, most of which are funded through Federal Transit Administration;

Projects which EPA finds will reduce emissions from transportation (mainly projects funded with Congestion Mitigation/ Air Quality (CMAQ) program); and

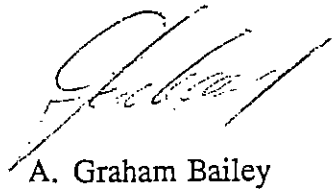
Portland to Boston Passenger Rail would also likely be exempt.

On an Annual Basis

Maine's traditional Federal-aid highway program obligates approximately 80 million dollars. The funding associated with exempt projects (not including the Portland to Boston Passenger Rail project) totals roughly $8 million. **Therefore approximately $72 million or 90% of our traditional program would be subject to the highway sanction.** Projects that would be impacted would include new bridge and highway projects as well as resurfacing and reconstruction projects. In addition to the $72 million associated with our regular Federal-aid program, sanctions are also likely to apply to the monies associated with Maine's demonstration projects (Portland-South Portland Bridge, Brunswick-Topsham Bypass, and Waterville-Winslow Bridge). During FY 1995, an estimated $52.1 million are expected to be obligated for these projects.

The information was prepared in consultation with MDOT. It is our understanding that MDOT is preparing more detailed information for use by the Committee. If you or other members of the Committee have additional questions please contact Tom Sorel, Division Transportation Planner, or myself at 622-8487.

Sincerely yours,



A. Graham Bailey
Assistant Division Administrator

cc: Dana Connors, MDOT

APPENDIX G

United States
Environmental Protection
Agency

Office of Air and Radiation
Office of Mobile Sources
Ann Arbor, Michigan 48105

EPA-AA-EPSD-I/M-94-8
August 1994

Air

EPA Audit of the Enhanced I/M Program in Maine

Executive Summary

On August 9, 10, and 11, 1994, a four person EPA audit team from the National Vehicle and Fuels Emission Laboratory in Ann Arbor, Michigan, conducted a brief audit of the Maine Car Test Program. The purpose of this audit was not to conduct a comprehensive or in-depth review of every aspect of the program but, rather, to evaluate the technical and organizational aspects of the program. The Maine inspection program is the first to employ IM240, evaporative system purge, and evaporative system pressure tests on a network-wide basis. The Maine Car Test program was found to be technically well designed and implemented. Minor technical problems were observed, however, none are likely to result in false test failures.

The major area that needs to be addressed at this time is public interface, especially revising the test report and other information provided to motorists that fail the test. Minor refinements are needed in the testing process, and procedures for suspending evaporative system tests when pattern failure problems are encountered are needed Additional informational training for the repair industry would be useful in helping insure efficient and effective communications and repairs, although the data on retest pass rates to date do not indicate a major problem with repair effectiveness.

Introduction

From August 9-11, 1994, a four person EPA audit team from the National Vehicle and Fuels Emission Laboratory in Ann Arbor, Michigan, conducted a brief audit of the Maine Car Test Program. The purpose of this audit was not to conduct a comprehensive or in-depth review of every aspect of the program but, rather, to evaluate the technical and organizational aspects of the program. The Maine inspection program is the first to employ IM240, evaporative system purge, and evaporative system pressure tests on a network-wide basis. These tests are being implemented in enhanced I/M programs throughout the country and Maine's experience will help those that follow to refine the design and operation of the enhanced I/M tests. The audit team visited four stations in the seven station network: Westbrook, Kennebunk, Lewiston, and Topsham. The first three of these stations are the largest volume stations in the system. The audit team focused on observing the testing process, monitoring inspector performance, assessing equipment and quality control, and evaluating the overall system.

General Description of the Test Process

The testing process in the Maine program uses a three position system that begins when the motorist pulls into the lane. At the first position, an inspector greets the motorist and obtains basic information and the vehicle registration. This information is used to call up the pre-existing vehicle record, if available, or to create a new record for the vehicle. The inspector determines whether this vehicle is scheduled for an inspection and, if not, asks the motorist if he or she would like a voluntary test. If the information collection is occurring in the lane (as opposed to outside the lane in the queue, when other cars occupy the test positions in the lane) the vehicle is turned off and, on 1981 and newer vehicles, another inspector prepares the vehicle for pressure testing by removing the vent lines from the evaporative canister under the hood and attaching a pressure test hose and for the purge test by connecting two purge hoses between the canister and the engine. A swinging arm is then brought into position in front of the car and the pressure test system is attached to the pressure test hose. Once attached, the inspector presses a button and the pressure test

proceeds automatically. When the test is completed, a light automatically illuminates to notify the inspector.

Once the pressure test is completed, the hood is lowered (but not closed) and the vehicle is moved to the second position in the lane where the IM240 and the evaporative purge tests are performed. With one inspector driving the vehicle and another inspector assisting, the vehicle is positioned on the dynamometer. While still running, the vehicle is prepped by one or two inspectors for the IM240 test:

- chock blocks are placed in front of the non-drive wheel tires
- for some front wheel drive cars, straps are attached to the front of the vehicle
- the cooling fan is positioned in front of the vehicle
- the purge meter (mounted on the cooling fan) is attached to the purge test hoses
- the sample funnel is attached to the tail pipe, and
- the test control console is hooked onto the steering wheel.

Once prepared, the inspector sits in the driver's seat and runs the IM240 and the evaporative system purge test. Maine employs fast-pass software so the test may last as little as 30 seconds or as long as 240 seconds. Once the IM240 is complete, the vehicle is deprepped and moved to the final position at which point the motorist resumes control of the vehicle, is given the test report and a brochure, and is advised of the test results. At this point, the motorist may be referred to the customer service office for more assistance.

Over the course of the three day visit the audit team observed this testing process at all four of the test stations visited. In most respects, inspectors followed the test procedures established by EPA and the State. There were several relatively minor deviations observed during the audit, that are unlikely to have any major impacts but do need to be addressed:

- In some stations, vehicle hoods were not left fully open during the IM240. Opening the hood during the transient test is important to simulate normal air flow cooling during the test. The effect on emissions of failing to open the hood is likely negligible, however, it is important to prevent vehicles from overheating.

- At one station, the sampling system was routinely removed from the tailpipe prior to the end of the test due to the mistaken belief that the final deceleration did not contribute to the test results. Pulling the sampling system off early is unlikely to result in false failures, however, there are some types of emission related malfunctions that might not be detected.

- At one station, the pressure and purge tests were skipped if the inspector observed that the vent line or purge lines were "brittle." As far as we could tell, these vehicles were not failed and required to get new hoses. EPA believes it is best to test these vehicles, however, if hoses are too brittle for the vehicle to be tested then it should fail.

- Vehicles were not always restarted right after the pressure test. EPA guidance requires a minimum of 30 seconds of engine operation after restart prior to the IM240. Minimizing the length of time the engine is shut off is important to

keep the vehicle in a fully warmed up condition. This will become more important when the weather gets colder.

The audit team also noted that the State's instructions to the contractor do not seem to include a comprehensive visual inspection of the evaporative canister. This check is part of the credit for the pressure test. A visual check of the evaporative canister needs to be performed and must include an assessment of the canister and the hose connections. Obviously tampered or damaged canisters or obviously missing or misrouted hoses must result in test failure.

There are several other recommendations that the State should consider in terms of how the test is run and which tests are employed:

- Suspend evaporative pressure or purge tests for problem vehicles such as Ford Broncos. EPA has approved alternative pressure and purge tests that should alleviate many of the problems that Maine has encountered. These tests will not be ready for use for approximately 6 months.

- Use fast-pass only when there are vehicles waiting in line to be tested. The fast-pass results only predict the final test outcome; they do not provide an accurate, absolute measure of the vehicle's condition. When time allows, completing the full test will provide the motorist and the State with more accurate information about the vehicle's emission rates.

- Check tire pressure when there are no lines. While the audit team did not notice any vehicles with low tire pressure being tested, we also did not observe any tire inflation occurring, which is required when low tire pressure is observed. It is often difficult to visually detect low tire pressure. Inflating tires to recommended tire sidewall pressure when there is no time pressure in the lane will yield important benefits: fuel economy will improve, emission rates may be reduced, and a more accurate test result will be insured.

The audit team did not note any other problems with the performance of the test but some potential problems are difficult to spot during overt observations. Inspectors should be reminded to:

- Verify vehicle operating temperature by checking the temperature gauge
- Check drive wheel tires for inflation and safety conditions
- Turn off *all* accessories during the IM240

Physical Structure and Equipment

Maine's contractor, Systems Control, Inc. has done an outstanding job in designing and deploying the IM240 testing system. The equipment is well designed in most respects and it appears to meet the specifications established in EPA guidance. The pressure test arm is very convenient to use - it swings into position and back out of the way with ease. The monitors and controls for the emission test are intuitive and practical. The equipment provides excellent feedback to the driver on the degree to which the trace is being followed. A possible problem observed in one case is that the software did not seem to identify the fact that the emission sample was lost after the sample funnel fell out of the tailpipe. An inspector noticed the problem and alerted the driver and the test was aborted. In another case, the sample funnel kept collapsing when the inspector tried to attach it to the tailpipe. The technical staff indicated that they were aware of the problem and plan to increase the

rigidity of the funnel. The purge equipment is mounted directly on the cooling fan, which is manually placed in front of the vehicle very easily and easily retracted after the test. The vehicle restraint system - which is also not automatic - is more cumbersome to deploy and, in two cases, inspectors did not remove chock blocks or straps prior to moving the vehicle to the third position. (The vehicles were not apparently damaged in these cases.) The layout of the lane is designed to minimize noise levels - blowers are placed near the ceiling in insulated boxes. Enclosed booths are provided along with fenced areas for observing tests to insure the safety and comfort of motorists. In general, the physical structure and the equipment meets EPA's expectations of how an effective system is designed and deployed.

Public Interface

The audit team observed the testing process from beginning to end in as many cases as possible. By necessity, inspectors must interact with motorists in order to conduct the test process. From the initial greeting to the final results, the audit team observed that inspectors acted courteously and helpfully. Even in cases where a customer was upset about failing the test or some other problem, the inspectors maintained their composure and performed their roles in a responsible manner. EPA does recommend one procedural change that is used in other centralized I/M programs.

- Inspectors should provide motorists with only a very brief verbal report on the results of the test and then refer motorists that have additional questions or would like assistance to the customer service office.

This will help increase throughput and insure that motorists are given consistent, accurate and comprehensive information. The audit team noticed that testing was frequently delayed because one member of the three-person team was occupied answering a motorist's questions in the third position. This does not seem to be an efficient use of the inspector's time. The training required to insure optimum responses to the wide variety of questions or potentially difficult situations is probably too much to ask of this type of position. In keeping with this, a system needs to be devised (e.g., a buzzer or light) such that when motorists do enter the customer service office, a customer service agent can respond promptly if they are not already present at the desk.

The other major interface with the public is the test report. This is one area where major changes need to be implemented right away. The audit team found the report to be confusing and the information in conflict with the intent of EPA guidance. It should be noted that EPA's guidance was not absolutely clear in this respect. EPA plans to make changes to clarify its intent. The following changes should be made to the test report:

- The composite emission standard should *always* be the *only* standard printed on the test report for each pollutant, regardless of the decision process used to determine pass/fail status. While the logic being used for determining the overall test result is correct, the report is confusing. Two standards are being printed now - the composite standard or the fast pass standard, *and* the phase 2 standard. This is very confusing - especially when a vehicle fails only the composite or only the phase 2 standard. When a vehicle fails only one, then the overall result is a pass. The fact that the printout says "Fail" for one of them implies a failure for that pollutant overall.

- Current practice is to print the fast-pass standard instead of the composite standard if the vehicle is fast-passed. This is even more confusing since vehicles of the same class appear to be subject to different standards. The

potential for this type of confusion was highlighted in a recent newspaper report in which it was inferred that one vehicle was tested at different standards at different stations. The fast pass standards should be viewed as subsets of the composite score since they are derived from the composite standard. As above, only the composite standard should be printed on the test report.

Two emission scores are also being reported for hydrocarbons and carbon monoxide, and the score reported is a function of the decision process used to determine pass/fail status. This is also confusing to motorists. The emission scores reported should be as follows:

- If the vehicle passes the composite standard, report only the composite emission score.
- If the vehicle fails the composite standard, report only the composite emission score.
- If the vehicle fails the composite standard but passes the phase 2 standard, report only the phase 2 results.
- If the vehicle fast passes, report the gram per mile emission rate for the test.

Another essential element of successful public interface is providing motorists that fail the test with information on what to do. The State and the contractor have produced an excellent brochure providing motorists with general information on how to respond to a test failure. At this time, however, that brochure, the test report, and verbal information is all that is provided to motorists. EPA's I/M rule requires that motorists also be provided with a list of repair facilities. This list must include all facilities that have performed repairs on one or more vehicles that failed the I/M test. The list may be segmented in various ways, including groupings of certified facilities and non-certified facilities. Naturally, at the start of the program, the list will be in a rapidly evolving state as more and more repair facilities become involved in the program. In addition to merely listing the facilities, EPA rules also require that the list include information on the success of stations that repair vehicles. Again, that information will take some time to accumulate and EPA does not expect such information to be reported in the first few months of a program.

- Give *every* failing motorist a list of repair facilities that are certified or have conducted repairs on vehicles that failed a test. Conversations with the Maine Department of Environment's I/M staff indicate that such a list is now available and will be distributed.

EPA's I/M rule also requires that repair technicians be provided with software generated diagnostic information when vehicles fail the test. The minimum that EPA intended was that motorists be given second-by-second emission results if they failed the test. This information could be passed on to repair technicians to use in the diagnostic process. The State is planning to provide this information to repair technicians via an electronic interface service. The printed information should also be provided so that the information is readily available to all technicians.

- Print out second-by-second trace information and give it to failing motorists.

Effective maintenance is the key to a successful I/M program. The State has taken commendable steps to establish training and certification programs for repair technicians. The Maine Central Technical College provides testing and training courses that relate

directly to the inspection program. The State and the contractor have also produced a series of newsletters that have been sent to repair facilities throughout the seven county region. Nevertheless, the audit team got the impression that some in the repair industry did not have a full understanding of the nature of the I/M tests being performed, general information on why the were necessary and what they were intended to find, information on how to interpret the results and other program specific information.

- EPA recommends that the State institute a series of brief repair technician training sessions to provide information about the program and how it works (i.e., not training on repairing vehicles, per se; Maine is already providing such a program). One of EPA's grantees has developed a training course that serves this purpose.

Failure Rates

The audit team reviewed data on the pass and fail rates for the first month of the program. The overall failure rate is 21%. The by-model-year failure rates track very closely with the failure rates predicted by EPA based on the standards being used. The audit team also looked at retest failure rates. Among vehicles that got repaired and returned to the test station for a retest, about 62% passed the retest. This rate is essentially the same as that experienced in other (basic) test-only I/M programs. This indicates that, in the majority of cases, repair technicians are able to repair the vehicle on the first try. EPA was concerned that in an area that has never had an I/M program and one that starts with enhanced I/M, unusual problems could be experienced with repair effectiveness. This does not seem to be the case; the repair community seems to be as capable as other I/M areas in fixing failed vehicles.

Summary and Conclusions

The Maine Car Test program is technically well designed and implemented. We conclude that Maine has successfully implemented the IM240, purge and pressure tests in mass production in a networked system. This system has been developed and tested by EPA over the last five years. Given that this is the first full-scale, enhanced IM240 program, the few technical problems noted in this audit are an indication of the outstanding job done by the Maine Department of Environment and its contractor, Systems Control. This is not to say, however, that there are no problems that need to be addressed. The technical problems, however, are minor.

The major area that needs to be addressed at this time is public interface, especially revising the test report and other information provided to motorists that fail the test. Minor refinements are needed in the testing process, and procedures for suspending evaporative system tests when pattern failure problems are encountered are needed Additional informational training for the repair industry would be useful in helping insure efficient and effective communications and repairs, although the data on retest pass rates to date do not indicate a major problem with repair effectiveness.

APPENDIX H

MEMORANDUM OF AGREEMENT

The Department of Environmental Protection ("Department") and Systems Control, Inc. ("SC") hereby memorialize their agreement to institute a six month voluntary testing program for the MVEIP to take advantage of lessons learned from initial operations during the phase-in of the program and to provide a period for the State of Maine to evaluate the public policy issues associated with the MVEIP.

I. Voluntary Testing Program

1. The mandatory emission testing program required by the MVEIP will be suspended from September 1, 1994 to March 1, 1995 and will be replaced by a voluntary testing program for that same period.

2. Motorists whose vehicles were to have been scheduled for inspection between September 1, 1994 and August 31, 1995 may, but need not, have emissions tests performed by SC during the voluntary testing period. The following rules apply to motorists who elect to have the emission test performed from September 1, 1994 to March 1, 1995.

A. Inspection Fee Reduced

The inspection fee will be $14.00 instead of $24.00, and will be applied as follows:

SC Retention	$11.00
Department	$1.00
Repair Reimbursement Fund	$2.00

B. Repair Waiver Reduced

The minimum repair expenditure after which a motorist becomes eligible for a waiver of the repair requirement will be $125.00 instead of $450.00 for 1981 and newer vehicles and $75.00 instead of $125.00 for vehicles older than 1981.

C. Repair Reimbursement Fund

A fund is created, to be administered by SC, which shall receive $2.00 of each test fee during the voluntary testing period, and which shall be used to reimburse repair costs in excess of $125.00 for 1981 and newer vehicles and in excess of $75.00 for vehicles older than 1981 which were incurred as a result of failing the emissions test in July or August, 1994.

D. Reinstatement of Full Amounts

The full $24.00 inspection fee and full $450.00 (1981 and newer) and $125.00 (pre-1981) waiver minimums will be reinstated as of March 1, 1995 for motorists whose vehicles were not voluntarily tested prior to

March 1, 1995. The inspection fee will be applied from and after that date as provided by the MVEIP Contract.

3. Motorists whose vehicles were to have been scheduled for inspection between September 1, 1994 and August 31, 1995 who do not elect to have emissions tests done during the voluntary period shall be scheduled for mandatory inspection as follows:

- Those scheduled for testing in September 1994 will be rescheduled for testing in April 1995.
- Those scheduled for testing in October 1994 will be rescheduled for testing in May 1995.
- Those scheduled for testing in November 1994 will be rescheduled for testing in June 1995.
- Those scheduled for testing in December 1994 will be rescheduled for testing in July 1995.
- Those scheduled for testing in January 1995 will be rescheduled for testing in August 1995.
- Those scheduled for testing in February 1995 will be rescheduled for testing in September 1995.
- Those scheduled for testing in March through August 1995 will be tested as originally scheduled.

4. Motorists who were scheduled for emissions testing between July 1, 1994 and August 31, 1994 but who did not have their vehicles tested may participate in the voluntary testing program described in paragraph 2, and if they do not so participate will be scheduled for mandatory inspection in March 1995.

5. Motorists who had their cars tested for emissions between July 1, 1994 and August 31, 1994 will receive a voucher entitling them to a $10.00 reduction of their next biennial inspection fee.

II. Changes in Operation of the MVEIP Program

1. The parties agree that SC will implement the following operational enhancements to the MVEIP to capture the lessons learned from the phase-in of the MVEIP, subject to the provisions of Section IV of this memorandum:

A. A refresher employee training program to take advantage of lessons learned from and public comments and suggestions regarding initial MVEIP operations.
The training program will include the following:
- Customer relations
- Confidentiality of vehicle owner information
- Vehicle handling to avoid damage

- Comprehensive information hot line
- Clear explanation of test results and methods
- Mechanical administration of test

B. An evaluation of employee staffing patterns to optimize full time employment and minimize employee turnover.

C. A problem solving process that quickly identifies unusual or unknown testing requirements and distributes their resolution throughout the MVEIP inspection facilities in the most timely manner.

D. Improve the comfort and utility of the inspection station, including rest room signage, explanatory materials and posters, customer waiting area, and a method for motorists to view miles per hour and other test data on their vehicle during the test.

E. A process to resolve damage claims in a timely manner.

F. With the participation of the Department, institute a repair technician "night out" open house at inspection facilities to educate the technicians on the inspection system and their role in the MVEIP.

G. Develop an effective method to inform motorists about the inspection appeal process.

H. Work with the Department to develop an effective public education program to inform motorists about the voluntary testing program.

I. Develop a proposal for the Department's consideration to provide second-by-second test results to motorists and repair technicians.

J. Evaluate the effectiveness of the MVEIP information hot line.

K. Evaluate the feasibility of collecting the inspection fee at the completion of the inspection process.

L. Develop a test procedure checklist, which is available in each inspection lane, that facilitates an effective and efficient inspection process and identifies unusual testing situations, i.e. rollover valve, down-spout tailpipe, unusual hood releases, to minimize false failures and unnecessary vehicle repairs.

M. Identify each inspector as a licensed emissions inspector. Post in each inspection station a list of all licensed emissions inspectors at that station which also describes how a motorist may review the certification of an

inspector. Each station will have available for review by the public at the customer service desk certificates of the inspectors employed at the station which indicates successful completion of training.

N. Recommend to the Department an improved vehicle inspection report that makes the vehicle test results more understandable to the public.

O. Provide information to the public which simply explains the test process.

P. Provide information to the public which gives guidance regarding specific areas of failure of the emission inspection and facilitates the repair process.

The parties agree that SC will submit a schedule for implementing the foregoing operational enhancements to the Department by September 12, 1994. Additional operational enhancements may be added to the foregoing list by mutual agreement of the parties.

III. Support for Public Relations

The State of Maine agrees to provide all appropriate and reasonable support to SC in the area of public relations.

IV. Changes in Compensation Due Under the MVEIP Contract

The parties agree that the consequences of the voluntary testing period and reduced inspection fee are a cost to the Contractor which will be addressed under Article IW of the Contract. The rights and remedies provided in the Contract to protect the public interest remain in full force and effect.

It is understood that under no circumstances shall there be any payment of money by the State to the Contractor, nor any increase in the maximum $24.00 inspection fee, arising out of the changes to the program contemplated by this agreement, unless the Legislature specifically approves of such a remedy; provided that the Department may in its discretion give funds to the Contractor from moneys already appropriated to the Department for this purpose in order to assist in carrying out the program enhancements under Section II.

V. Amendment to Contract

The parties agree to incorporate the provisions of this memorandum in a formal amendment to the MVEIP Contract and reaffirm that except as expressly amended hereby the Contract remains in full force and effect.

It is recognized that some of the changes to the program contemplated by this agreement require amendments to rules adopted by the Board of Environmental Protection, and the Department agrees to propose such rule amendments forthwith.

Dated at Augusta, Maine, this 1st day of September, 1994

Maine Department of Environmental Protection

By _____

Its Acting Commissioner

Systems Control, Inc.

By _____

Its President

APPENDIX I

TO: Joint Select Committee to Review the Implementation of the Auto Emissions Inspection Program

FROM: Issues Identification Subcommittee

DATE: 9/1/94

The subcommittee met August 30 and 31 to review the full committee report of August 29 and suggest improvements in the operation of the Inspection and Maintenance Program.

After considering the report, as well as feedback from public hearings and constituents, we suggest that the following issues be addressed during a suspension:

1. Contractor employee training
   * Customer relations
   * Confidentiality
   * Vehicle handling to avoid damage (hoods, etc.)
   * More informative 800# line responses
   * Explanation of test results and methods (clear understanding of all aspects by employees)
   * Mechanical administration of test (hood opening and closing, which wheel to test)
   * Standard-shift vehicles

2. Staffing patterns
   * Address turnover rate
   * More full-time people on the front line, interacting with people.

3) Problem solving process: (examples: down-spout tailpipe, Contractor/DEP/EPA communication and paper trail)

4) Station comfort:
   * Seats
   * Rest room signage
   * Explanatory information (video)

5) Quicker turn-around to resolve damage complaints

6) Institute "Technicians' Night Out" open house to bring auto technicians up to speed on the testing system.

7) Inform customers about the test appeal process and consumer complaint process

8) Public education (particularly when program suspension ends)

9) Provide second-by-second test report to customers and technicians

10) Additional 800#s (at least temporarily)

11) Ask for the $24 test fee at the end of the test.

12) Develop a test-procedure checklist that is on-site and that employees must follow.

13) Post inspector license certificates in waiting areas

14) Independent review of administration/management

15) Independent one-time audit of equipment for:
* Calibration
* Increasing consistency and reliability

16) Additional diagnostic information to consumers and technicians

17) Cooperative public education process

18) Develop process to report minor violations to the contractor and assure follow-up and resolution of issues

19) Improved communications

20) What constitutes a pass (What if vehicle passes some portions on test on first try, but fails those same portions on second try: which results apply?

21) Explore promised EPA funds for 800# line

22) Develop independent certification exam for lane inspectors

23) Review movement of fleet registrations to the areas of state not subject to the emission test.

WPPNRG6117

APPENDIX J

SC TESTING TECHNOLOGY

STATUS REPORT ON CHANGES IN OPERATIONS

As of December 15, 1994

*Note: Updates shown in **bold-face italicized print***

II. Changes in Operation of the MVEIP

A. Refresher employee training program including customer relations, confidentiality, vehicle handling, comprehensive hot line, explanation of test results/methods, administration of test.

The following employee training enhancements and procedural changes have been implemented to address customer service issues:

All lane inspectors have participated in one-on-one training sessions targeting key areas of concern as identified by the DEP survey results and analysis of complaints. These training sessions included customer relations, explanation of the test procedure, provision of useful information to vehicle owners who fail the test, and providing additional customer service, if required. Station management also received similar training. Training methods we used included: Script development for lane inspectors, role playing, staff forums, reenactment using actual complaints and questions, and video presentations. Improved survey results reflect the effectiveness of these training sessions. Please note that these training programs will continue throughout the duration of the MVEIP. (See Exhibit "A")

B. Evaluation of employee staffing patterns to optimize full time employment and minimize employee turnover.

This item is still under evaluation, and we will be integrating the results of our employee training program into the evaluation.

C. Development of a problem solving process to identify special testing requirements/resolution and subsequent timely distribution throughout the network.

A procedure has been implemented that allows the identification, tracking and resolution of unusual testing situations. This procedure utilizes a Problem Report Form that is generated in each lane by inspection personnel. Problem Report Forms are evaluated by headquarters management and appropriate remedies are disseminated throughout the network. The established procedure ensures the quick identification, resolution, and correction of testing problems that may be encountered in the lane. (See Exhibit "B")

D. Improve comfort/utility of inspection stations, i.e. restroom signage, explanatory materials, waiting area, allowing motorists to view miles per hour/test data during test.

Waiting booths have been painted, benches added, carpet runners installed, and additional windows have been installed so that motorists may better view the test procedure. Restroom signs are currently being installed in each waiting booth and walkway. Posters describing the test procedure and "clean air" posters have been ordered for both waiting booths and

customer service areas. All waiting booths have organizers containing test and program informational materials. Lane inspectors now position one of the color monitors so that motorists can view the test trace and miles per hour for their vehicle.

E. Process to resolve damage claims in a timely manner.

In order to expedite the resolution of damage claims, a procedure has been implemented which allows station management to reimburse motorists at the station for amounts up to $200. Claims greater than this amount are quickly processed by headquarters, with an average turnaround time of approximately one week. (See Exhibit "C")

F. Institute repair technician "night out" open house in cooperation with the DEP.

Systems Control has hired a new employee who has a diversified background in the areas of automotive instruction and service management. This individual will be visiting Maine to host several open houses for the repair industry.

G. Develop effective method to inform motorists about inspection appeal process.

Scheduled for December 30, 1994.

H. Work with DEP to develop an effective public education program to inform motorists about Voluntary Testing Program.

A public education plan has been developed. Step 1 of the plan involved educating the public about the Voluntary Program through a BMV letter which was sent in conjunction with an informational brochure prepared by DEP. Step 2 includes a series of direct mailings (postcard) targeted to inform all eligible motorists of the Voluntary Testing Program. Approximately 262,000 postcards will be sent in a series of releases. Step 3 includes other public information approaches that are currently under discussion with the Department. (See Exhibit "D")

I. Develop proposal for DEP's consideration to provide second-by-second test results to motorists/repair technicians.

A proposal with three options addressing the creation of second-by-second test results has been submitted to the Department. Systems Control is awaiting DEP approval and will then quickly implement the enhancement option chosen by the Department.

J. Evaluate effectiveness of the MVEIP information hot line.

The MVEIP hot line has been evaluated and the results have been forwarded to the Department. In order to better service hot line callers, several changes were made enabling easier access to a "live" operator and the addition of an option regarding anticipated wait times.

K. Evaluate feasibility of collecting inspection fee at completion of inspection process.

Scheduled for December 30, 1994.

L. Develop test procedure checklist facilitating an effective/efficient inspection process (including identification of unusual testing situations, i.e. rollover valve, down-spout tailpipe, etc.) to minimize false failures and unnecessary vehicle repairs.

Test procedure checklists have been created and are posted in each position of every lane. (See Exhibit "E")

M. Identify each inspector as a licensed emissions inspector, post lists containing this information fat each station, and have inspector certification information available for viewing by the public.

A list of licensed emissions inspectors is now posted in every waiting booth, and a complete list of certifications is now available at the customer service counter. (See Exhibit "F")

N. Recommend improved Vehicle Inspection Report to the Department.

The Vehicle Inspection Report has been simplified (test standards and results) in accordance with requests from the Department and EPA. (See Exhibit "G")

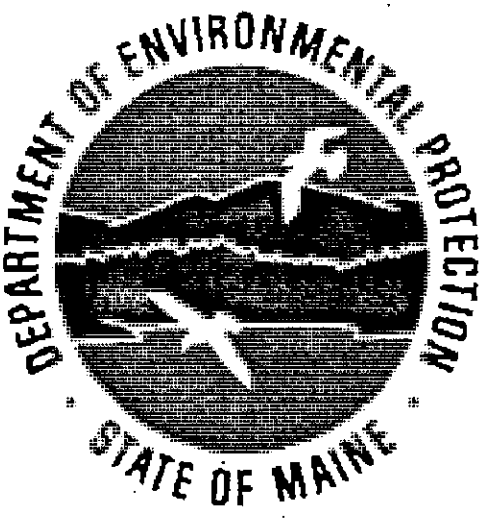
O. Provide information to public which simply explains the test process.

A brochure explaining the test procedure is now offered to every motorist. (See Exhibit "H")

P. Provide information to public giving guidance regarding specific areas of failure and facilitating the repair process.

Handouts and brochures which address specific areas of failure and identify Certified Repair Technicians have been developed and are now distributed to all motorists whose vehicles fail the test. (See Exhibit "I")

APPENDIX K



SUMMARY

STATE OF MAINE
1990 BASE YEAR INVENTORY

JULY 20, 1994

State of Maine DEP
Bureau of Air Quality Control

SUMMARY
STATE OF MAINE
1990 BASE YEAR
AIR EMISSIONS INVENTORY

INTRODUCTION

The State of Maine 1990 Base Year Emissions Inventory is a comprehensive inventory of stationary point and area sources as well as mobile sources of air pollutants. The inventory is an accounting of the precursors of ground-level ozone, sometimes called smog. Ozone is a respiratory irritant which has adverse health effects and is known to cause damage to materials and vegetation.

Ozone is a photochemically produced pollutant, that is; it is formed through the photochemical reaction of VOC (volatile organic compounds), NOx (nitrogen oxides) and CO (carbon monoxides) in the presence of sunlight. VOC, which include non-methane hydrocarbons (NMHC), are commonly emitted from industrial processes and mobile sources. A major component of NOx is nitrogen dioxide (NO_2) that is often emitted by large stationary combustion sources as well as mobile sources. CO is an asphyxiant gas that is generally emitted by mobile sources.

Major elements of the Clean Air Act Amendments of 1990 (CAAA90) are in response to the fact that large portions of the United States as well as 9 counties in Maine are in violation of national ambient air quality standards (NAAQS) for ozone. As a result the states were required to upgrade their emissions inventories in an effort to obtain more accurate and precise data on actual air emissions in each state.

The CAAA90 required states to prepare an exhaustive inventory of these pollutants for the calendar year ***1990*** which was to become the ***base year*** of the inventory. An "**adjusted base year inventory**" (based on the 1990 inventory) and the "**1996 projection year inventory**" will be used to provide the basis for modeling and to devise an attainment strategy. The objective is to achieve a 15 percent reduction in VOC emissions by the year 1996 in the ozone nonattainment areas as required by the CAA90.

To develop and implement an effective ozone control strategy, states must compile information on all possible sources of these ozone precursor pollutants. These emissions from all sources in the state of Maine are presented in this inventory for a typical summer weekday during the peak ozone season (June, July, August).

GEOGRAPHIC AREA AND CLASSIFICATIONS

Currently, the state of Maine has both moderate and marginal ozone (O_3) nonattainment areas. These areas are divided into "planning areas" (see map).

The *Southern Maine planning area, referred to as Moderate 1, includes* York, Cumberland, and Sagadahoc counties and is classified as a moderate ozone nonattainment area. *The Androscoggin and Kennebec counties* comprise another planning area, called *Moderate 2,* and it is also classified as a moderate nonattainment area. Likewise the *Knox and Lincoln counties planning area ,* is designated as a moderate nonattainment area and is called *Moderate 3*. The planning area containing *Hancock and Waldo* counties is designated as a marginal nonattainment area for ozone. Parts of the counties of *Franklin, Oxford, and Somerset Counties* are currently classified as areas with incomplete ozone (0_3) data and are also included in this inventory as well as all the remaining counties of the State. Summary Tables are included in the Appendix for each of the Moderate planning areas, the Marginal planning area, the attainment counties in the northern part of the state, and a statewide total.

No carbon monoxide (CO) nonattainment areas exist in Maine. Consequently, this inventory will focus largely on ozone season emissions of precursors of ozone, i.e. volatile organic compounds (VOC), oxides of nitrogen (NO_X), and carbon monoxide (CO), in the ozone nonattainment regions, located in the southern/coastal portion of the state. Statewide estimates of the other criteria pollutants, where emissions do occur, and factors are available are also be included in the summary tables.

METHODOLOGY

The Maine Department of Environmental Protection (DEP) Bureau of Air Quality Control has been developing an improved emissions inventory capability over the past several years and has completed point source inventories for major sources for each year since the 1985 NAPAP inventory. These prior efforts have served as the foundation for the 1990 Base Year Inventory, as required by the 1990 Clean Air Act Amendments.

The 1990 Base Year Emission Inventory for the state of Maine was compiled using EPA approved methodologies. The general methodology is to use activity values or surrogate measures of activity for each source and then multiply each value by the appropriate emission factors to get an estimate of the emissions from the variuous sources. Procedures are referenced for each methodology and source category

throughout the inventory. The primary guidance followed was prepared by the Environmental Protection Agency (EPA) is entitled: "Procedures for Emission Inventory Preparation, Volumes I-V." These volumes provide guidance in planning and compiling precursor emissions inventories, and were followed extensively during the preparation of this inventory.

The emission inventory is subdivided into three broad categories: point, area, and mobile:

- **Point source** emissions are based on data obtained from inventory questionnaires mailed to licensed sources by the Bureau of Air Quality Control for the calendar year 1990 and by review of field inspection reports and information in the licensing files of each source surveyed. The activity factor can be the quantity and type of materials and fuel used while the emission factors are based on source classification codes (SCC) related to the source process types. Control effectiveness of any control equipment used is factored into the emissions estimation equations. Likewise a rule effectiveness factor of 80% is applied to those sources for which there are existing regulations.
- **Area source** emissions are generated from sources which are generally too small to be recorded in the point source inventory. The activity factors include material sales records, state registration records, fuel/material usage data, employment data and per capita factors. Emission factors are frequently based on state employment and population data.
- **Mobile source** emissions represent non-road and highway vehicles. The activity factor for the highway vehicles is based on daily vehicle miles traveled and was obtained from the Maine Department of Transportation. That data was seasonally adjusted and emission factors were obtained from the EPA Mobile 5a model. The non-road emissions were obtained from the EPA Office of Mobile Sources study of several non-attainment areas for which a surrogate area was selected for Maine. These data were applied to the Maine non-attainment counties using a population derived factor.

INVENTORY TYPES

The **Base Year Inventory** is the primary inventory from which other ozone precursor inventories are derived. Other inventories include the **Reasonable Further Progress (RFP) or Projection Inventories, Periodic Inventories,** and **Modeling Inventories,** all of which are described in the various requirements documents for ozone state implementation plans (SIPS).

The **Base Year Inventory** will produce annual and seasonal emission estimates of reactive VOC, NOx and CO. Spatial resolution in general is summarized at the county level.

The **Reasonable Further Progress (RFP) or Projection Inventories** are used to track and document progress that States are making towards reaching attainment.

The effects of emission reductions that must be achieved are projected to future years and the corresponding **Periodic Inventory** is used as a measure of the progress toward attainment of the neccessary emissions reductions.

The **Modeling Inventories** have to be compiled for those non-attainment areas where photochemical grid modeling is required such as in serious areas and above and multi-state moderate areas.

DOCUMENTATION

In the **1990 Base Year Inventory Documentation** you can find detailed information on all the procedures used to estimate Maine air emissions. As in any emission inventory, the values compiled herein are a series of successive approximations which have been prepared in an effort to estimate, as accurately as possible, the actual emissions from air emission sources within the state. The estimation methods used may, in many instances, be improved and will be employed in order to improve the quality of future inventories.

SOURCE CATEGORY	VOC	SO2	NOX	CO	PM
Point Sources					
Inventory (from SAMS)	61.59	225.57	101.28	65.34	79.92
POTWs	0.97				
Package Plants					
TSDFs	1.51				
Landfills	1.67				
Area Sources					
Gasoline Distribution					
Tank Truck Unloading	4.84				
Vehicle Refueling	6.19				
Underground Tank Breathing	0.88				
Tank Trucks in Transit	0.15				
Aircraft Refueling	1.35				
Petroleum Vessel Loading & Unloading	5.63				
Stationary Fuel Use & Fires (TOTAL)*	10.83	0.00	17.86	53.51	
Stationary Source Solvent Use					
Dry Cleaning	0.30				
Surface Cleaning	7.77				
Surface Coating	19.21				
Graphic Arts	3.07				
Asphalt Paving	8.56				
Pesticide Application	3.29				
Commercial/Consumer Solvent Use	10.62				
SOC Storage Tanks	0.00				
Barge, Tank Truck, etc. Cleaning					
Bioprocess Emissions Sources					
Bakeries	1.56				
Breweries					
Wineries					
Distilleries	0.02				
Catastrophic/Accidental Releases					
Oil Spills	1.01				
Rail Car, etc. Accidents					
Solid Waste Incineration					
On-site Incineration					
Open Burning	0.73		0.27	1.82	
Other Stationary Area Sources					
Forest Fires	0.44		0.07	2.54	
Slash/Prescribed Burning	0.05			1.41	
Agricultural Burning	0.00		0.00	0.00	
Structure Fires	0.21		0.02	1.14	
Orchard Heaters					
Leaking Underground Storage Tanks	0.98				
Mobile Sources					
Highway Mobile Sources	113.66		156.24	912.52	
Non-highway Mobile Sources**	29.89		23.18	292.21	
Aircraft	0.82		0.66	8.92	

SOURCE CATEGORY	VOC	SO2	NOX	CO	PM
Railroad Locomotives	0.19		4.15	0.53	
Vessels					
Commercial	0.04		0.21	0.07	
Biogenic Sources	3151.80				
TOTAL	3449.80	225.57	303.94	1340.00	79.92
POINT (Includes POTW, TSDF, Landfill)	65.74	225.57	101.28	65.34	79.92
AREA	87.66	0.00	18.22	60.42	0.00
MOBILE	144.60	0.00	184.44	1214.25	0.00
BIOGENIC	3151.80	0.00	0.00	0.00	0.00
*Includes the following categories for:					
Stationary Fuel Use & Fires					
Coal					
Fuel Oil					
Kerosene					
Natural Gas					
LP Gas					
Wood					
**Includes the following off-highway categories:					
Non-road Gasoline					
Recreational					
Construction					
Industrial					
Lawn & garden					
Farm					
Light Commercial					
Logging					
Airport Service					
Recreational Marine Vessels					
All other not classified					
Non-Road Diesel					
Recreational					
Construction					
Industrial					
Lawn & garden					
Farm					
Light Commercial					
Logging					
Airport Service					

1990 Base Year Summary Moderate Planning Area 1
York, Cumberland , Sagadahoc Counties

Tons/Summer Weekday

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Point Sources						
Inventory (from SAMS)		9.93	50.39	19.38	6.05	1.89
POTWs		0.50				
Package Plants		0.00				
TSDFs		0.53				
Landfills		0.45				
Area Sources						
Gasoline Distribution						
Tank Truck Unloading		1.84				
Vehicle Refueling		3.19				
Underground Tank Breathing		0.31				
Tank Trucks in Transit		0.05				
Aircraft Refueling		0.38				
Petroleum Vessel Load. & Unload.		4.89				
Stationary Fuel Use & Fires (TOTAL)*		2.27		6.05	6.52	
Stationary Source Solvent Use						
Dry Cleaning		0.19				
Surface Cleaning		2.79				
Surface Coating		6.36				
Graphic Arts		1.10				
Asphalt Paving		1.28				
Pesticide Application		0.23				
Commercial/Consumer Solvent Use		3.81				
SOC Storage Tanks		0.00				
Barge, Tank Truck, etc. Cleaning		0.00				
Bioprocess Emissions Sources						
Bakeries		0.74				
Breweries		0.00				
Wineries		0.00				
Distilleries		0.00				
Catastrophic/Accidental Releases						
Oil Spills		0.36				
Rail Car, etc. Accidents		0.00				
Solid Waste Incineration						
On-site Incineration		0.00				
Open Burning		0.06		0.06	0.00	
Other Stationary Area Sources						
Forest Fires		0.03		0.01	0.18	
Slash/Prescribed Burning		0.00			0.10	
Agricultural Burning		0.00		0.00	0.00	
Structure Fires		0.06		0.01	0.33	
Orchard Heaters		0.00				
Leaking Underground Storage Tanks		0.35				
Mobile Sources						
Highway Mobile Sources		41.50		58.09	331.51	
Non-highway Mobile Sources**		12.99		6.23	69.03	
Aircraft		0.30		0.23	2.78	

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Railroad Locomotives		0.02		0.54	0.06	
Vessels						
Commercial		0.02		0.11	0.04	
Biogenic Sources		197.60				
TOTAL		294.15	50.39	54.93	227.78	#REF!
POINT (Includes POTW, TSDF, Landfill)		11.41	50.39	19.38	6.05	1.89
AREA		30.30		6.13	7.12	
MOBILE		54.83		65.20	403.41	
BIOGENIC		197.60				
*Includes the following categories for:						
Stationary Fuel Use & Fires						
Coal						
Fuel Oil						
Kerosene						
Natural Gas						
LP Gas						
Wood						
**Includes the following off-highway categories:						
Non-road Gasoline						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						
Recrational Marine Vessels						
All other not classified						
Non-Road Diesel						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Point Sources						
Inventory (from SAMS)		2.841	13.615	4.490	2.353	1.416
POTWs		0.065				
Package Plants						
TSDFs		0.293				
Landfills		0.341				
Area Sources						
Gasoline Distribution						
Tank Truck Unloading		0.808				
Vehicle Refueling		1.399				
Underground Tank Breathing		0.158				
Tank Trucks in Transit		0.030				
Aircraft Refueling		0.231				
Petroleum Vessel Load. & Unload.						
Stationary Fuel Use & Fires (TOTAL)*		1.140		3.040	3.270	
Stationary Source Solvent Use						
Dry Cleaning		0.100				
Surface Cleaning		1.400				
Surface Coating		3.340				
Graphic Arts		0.553				
Asphalt Paving		0.571				
Pesticide Application		0.140				
Commercial/Consumer Solvent Use		1.910				
SOC Storage Tanks		0.000				
Barge, Tank Truck, etc. Cleaning						
Bioprocess Emissions Sources						
Bakeries		0.530				
Breweries						
Wineries						
Distilleries		0.021				
Catastrophic/Accidental Releases						
Oil Spills		0.181				
Rail Car, etc. Accidents						
Solid Waste Incineration						
On-site Incineration						
Open Burning		0.032		0.032	0.000	
Other Stationary Area Sources						
Forest Fires		0.012			0.071	
Slash/Prescribed Burning					0.061	
Agricultural Burning		0.000		0.000	0.000	
Structure Fires		0.031			0.170	
Orchard Heaters						
Leaking Underground Storage Tanks		0.176				
Mobile Sources						
Highway Mobile Sources		17.790		23.650	142.940	
Non-highway Mobile Sources**		6.513		3.220	34.616	
Aircraft		0.180		0.140	1.630	

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Railroad Locomotives		0.020		0.400	0.050	
Vessels						
Commercial		0.000				
Biogenic Sources		122.700				
TOTAL		103.172	10.612	23.021	119.351	0.897
POINT (Includes POTW, TSDF, Landfill)		3.540	13.615	4.490	2.353	1.416
AREA		12.764		3.078	3.572	
MOBILE		24.503		27.410	179.236	
BIOGENIC		122.700				
*Includes the following categories for:						
Stationary Fuel Use & Fires						
Coal						
Fuel Oil						
Kerosene						
Natural Gas						
LP Gas						
Wood						
**Includes the following off-highway categories:						
Non-road Gasoline						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						
Recrational Marine Vessels						
All other not classified						
Non-Road Diesel						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						

1990 Base Year Summary Moderate Planning Area 3
Knox Lincoln Counties

Tons/Summer Weekday

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Point Sources						
Inventory (from SAMS)		0.73	5.64	2.79	0.06	4.24
POTWs		0.05				
Package Plants						
TSDFs		0.08				
Landfills		0.10				
Area Sources						
Gasoline Distribution						
Tank Truck Unloading		0.26				
Vehicle Refueling		0.46				
Underground Tank Breathing		0.05				
Tank Trucks in Transit		0.01				
Aircraft Refueling		0.09				
Petroleum Vessel Load. & Unload.						
Stationary Fuel Use & Fires (TOTAL)*		0.35		0.90	0.99	
Stationary Source Solvent Use						
Dry Cleaning		0.01				
Surface Cleaning		0.42				
Surface Coating		1.01				
Graphic Arts		0.17				
Asphalt Paving		0.17				
Pesticide Application		0.09				
Commercial/Consumer Solvent Use		0.57				
SOC Storage Tanks		0.00				
Barge, Tank Truck, etc. Cleaning						
Bioprocess Emissions Sources						
Bakeries		0.00				
Breweries						
Wineries						
Distilleries						
Catastrophic/Accidental Releases						
Oil Spills		0.05				
Rail Car, etc. Accidents						
Solid Waste Incineration						
On-site Incineration						
Open Burning		0.02		0.01	0.03	
Other Stationary Area Sources						
Forest Fires		0.02			0.11	
Slash/Prescribed Burning					0.04	
Agricultural Burning		0.00		0.00	0.00	
Structure Fires		0.02			0.10	
Orchard Heaters						
Leaking Underground Storage Tanks		0.05				
Mobile Sources						
Highway Mobile Sources		6.04		7.40	43.48	
Non-highway Mobile Sources**		1.96		0.89	10.43	
Aircraft		0.02		0.00	0.51	

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Railroad Locomotives		0.00		0.11	0.01	
Vessels						
Commercial		0.01		0.05	0.02	
Biogenic Sources		68.00				
TOTAL		80.80	5.64	12.15	55.77	4.24
POINT (Includes POTW, TSDF, Landfill)		0.96	5.64	2.79	0.06	4.24
AREA		3.81		0.92	1.26	
MOBILE		8.03		8.45	54.45	
BIOGENIC		68.00				
*Includes the following categories for:						
Stationary Fuel Use & Fires						
Coal						
Fuel Oil						
Kerosene						
Natural Gas						
LP Gas						
Wood						
**Includes the following off-highway categories:						
Non-road Gasoline						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Serv ice						
Recrational Marine Vessels						
All other not classified						
Non-Road Diesel						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Serv ice						

1990 BaseYear Summary Marginal Non-attainment area
Hancock Waldo Counties

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Point Sources						
Inventory (from SAMS)		2.48	11.17	5.49	1.76	0.51
POTWs		0.03				
Package Plants						
TSDFs		0.10				
Landfills		0.12				
Area Sources						
Gasoline Distribution						
Tank Truck Unloading		0.31				
Vehicle Refueling		0.18				
Underground Tank Breathing		0.06				
Tank Trucks in Transit		0.01				
Aircraft Refueling		0.03				
Petroleum Vessel Loading & Unloading		0.74				
Stationary Fuel Use & Fires (TOTAL)*		0.41		1.07	1.18	
Stationary Source Solvent Use						
Dry Cleaning		0.00				
Surface Cleaning		0.51				
Surface Coating		1.21				
Graphic Arts		0.20				
Asphalt Paving		0.92				
Pesticide Application		0.25				
Commercial/Consumer Solvent Use		0.70				
SOC Storage Tanks		0.00				
Barge, Tank Truck, etc. Cleaning						
Bioprocess Emissions Sources						
Bakeries		0.00				
Breweries						
Wineries						
Distilleries		0.00				
Catastrophic/Accidental Releases						
Oil Spills		0.07				
Rail Car, etc. Accidents						
Solid Waste Incineration						
On-site Incineration						
Open Burning		0.14		0.03	0.43	
Other Stationary Area Sources						
Forest Fires		0.04		0.01	0.25	
Slash/Prescribed Burning		0.00			0.11	
Agricultural Burning		0.00		0.00	0.00	
Structure Fires		0.01			0.07	
Orchard Heaters					0.00	
Leaking Underground Storage Tanks		0.06			0.00	
Mobile Sources						
Highway Mobile Sources		8.70		11.19	63.14	
Non-highway Mobile Sources**		2.37		1.34	12.54	
Aircraft		0.01		0.00	0.18	

1990 BaseYear Summary Marginal Non-attainment area
Hancock Waldo Counties

SOURCE CATEGORY		VOC	SO2	NOX	CO	PM
Railroad Locomotives		0.02		0.29	0.04	
Vessels		0.00				
Commercial		0.01		0.03	0.01	
Biogenic Sources		216.40				
TOTAL		236.10	11.17	19.46	79.71	0.51
POINT (Includes POTW, TSDF, Landfill)		2.74	11.17	5.49	1.76	0.51
AREA		5.86	0.00	1.11	2.03	0.00
MOBILE		11.10	0.00	12.85	75.92	0.00
BIOGENIC		216.40	0.00	0.00	0.00	0.00
*Includes the following categories for:						
Stationary Fuel Use & Fires						
Coal						
Fuel Oil						
Kerosene						
Natural Gas						
LP Gas						
Wood						
**Includes the following off-highway categories:						
Non-road Gasoline						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						
Recrational Marine Vessels						
All other not classified						
Non-Road Diesel						
Recreational						
Construction						
Industrial						
Lawn & garden						
Farm						
Light Commercial						
Logging						
Airport Service						

	VOC	SO2	NOX	CO	PM
Point Sources					
Inventory (from SAMS)	45.61	144.76	69.13	55.12	71.87
POTWs	0.33				0.00
Package Plants	0.00				0.00
TSDFs	0.51				0.00
Landfills	0.65				0.00
Area Sources					
Gasoline Distribution					
Tank Truck Unloading	1.62				0.00
Vehicle Refueling (Included in Mobile)	0.97				0.00
Underground Tank Breathing	0.30				0.00
Tank Trucks in Transit	0.05				0.00
Aircraft Refueling	0.62				0.00
Petroleum Vessel Loading & Unloading	0.00				0.00
Stationary Fuel Use & Fires (TOTAL)*	6.66		6.80	41.55	0.00
Stationary Source Solvent Use					
Dry Cleaning	0.00				0.00
Surface Cleaning	2.65				0.00
Surface Coating	7.29				0.00
Graphic Arts	1.05				0.00
Asphalt Paving	5.61				0.00
Pesticide Application	2.58				0.00
Commercial/Consumer Solvent Use	3.63				0.00
SOC Storage Tanks	0.00				0.00
Barge, Tank Truck, etc. Cleaning	0.00				0.00
Bioprocess Emissions Sources					
Bakeries	0.29				0.00
Breweries	0.00				0.00
Wineries	0.00				0.00
Distilleries	0.00				0.00
Catastrophic/Accidental Releases					0.00
Oil Spills	0.34				0.00
Rail Car, etc. Accidents	0.00				0.00
Solid Waste Incineration					
On-site Incineration	0.00				0.00
Open Burning	0.47		0.13	1.36	0.00
Other Stationary Area Sources					
Forest Fires	0.33		0.06	1.94	0.00
Slash/Prescribed Burning	0.04		0.00	1.11	0.00
Agricultural Burning	0.00		0.00	0.00	0.00
Structure Fires	0.09		0.01	0.48	0.00
Orchard Heaters	0.00		0.00	0.00	0.00
Leaking Underground Storage Tanks	0.33		0.00	0.00	0.00
Mobile Sources					
Highway Mobile Sources	39.63		55.91	331.45	0.00
Non-highway Mobile Sources**	6.06		11.50	165.59	0.00
Aircraft	0.31		0.29	3.82	0.00

	VOC	SO2	NOX	CO	PM
Railroad Locomotives	0.13		2.81	0.37	0.00
Vessels					
Commercial	0.00		0.02	0.01	0.00
Biogenic Sources	2547.10		0.00	0.00	0.00
TOTAL	2675.24	144.76	146.66	602.79	71.87
POINT (Includes POTW, TSDF, Landfill)	47.09	144.76	69.13	55.12	71.87
AREA	34.92	0.00	7.00	46.43	0.00
MOBILE	46.13	0.00	70.53	501.23	0.00
BIOGENIC	2547.10	0.00	0.00	0.00	0.00
*Includes the following categories for:					
Stationary Fuel Use & Fires					
Coal					
Fuel Oil					
Kerosene					
Natural Gas					
LP Gas					
Wood					
**Includes the following off-highway categories:					
Non-road Gasoline					
Recreational					
Construction					
Industrial					
Lawn & garden					
Farm					
Light Commercial					
Logging					
Airport Service					
Recreational Marine Vessels					
All other not classified					
Non-Road Diesel					
Recreational					
Construction					
Industrial					
Lawn & garden					
Farm					
Light Commercial					
Logging					
Airport Service					