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Colorado Department
of Public Health
and Environment

June 14, 2002

The Honorable Stan Matsunaka
Chairman, Legislative Council
Colorado General Assembly
State Capitol
200 East Colfax
Denver, CO 80203

Dear Senator Matsunaka:

The Colorado Air Quality Control Commission respectfully submits the attached report on the annual evaluation of the automobile inspection and maintenance program to the General Assembly in fulfillment of the requirements outlined in Section 42-4-306(9)(a)(1), C.R.S. The commission appreciates the opportunity to present an evaluation of this program and make recommendations to the Colorado General Assembly for future changes.

The report makes two specific recommendations for consideration by the legislature. These recommendations focus on providing flexibility to the Commission to make the program less intrusive and less costly to the individual motorist while protecting the air quality benefits of an I/M program.

The report evaluates the air pollution control effectiveness and the cost effectiveness of the program. These evaluations are expressed as ranges due to the fact that there are several methodologies that are available to make such analysis of which no two use the same data or method. This evaluation has attempted to consider all the available information to make a determination of the range of the program benefit.

The Commission has also attempted to keep the report short in an effort to be concise and convey the necessary information. If you have any questions please contact me at your convenience at 303-277-2196, or Doug Lempke, Commission Administrator, at 303-692-3478.

Sincerely,

Robert E. Brady, Jr.
Chairman,
Air Quality Control Commission

Annual Report
on the
Automobile Inspection and Readjustment Program

July 1, 2002

RECOMMENDATIONS

THE COMMISSION MAKES THE FOLLOWING RECOMMENDATIONS FOR CONSIDERATION BY THE GENERAL ASSEMBLY:

The Air Quality Control Commission recommends the following for consideration by the General Assembly. The Air Pollution Control Division is currently conducting air quality modeling efforts, utilizing EPA's newly released Mobile 6 emissions model. Following completion of the modeling analysis and deliberation by the Air Quality Control Commission, additional recommendations may be forwarded to the Colorado General Assembly for consideration during the 2003 and 2004 legislative sessions. Any subsequent recommendations will focus on increasing program flexibility, decreasing the burden of the program to the public, while achieving the goal of maintaining ambient air quality standards.

1. The Air Quality Control Commission requests authority to determine the appropriate number of newer model year vehicles that could be exempted from the I/M Program inspection requirement.

2. The Air Quality Control Commission requests authority to modify the change of ownership inspection requirement, so that only one inspection would be required at the point of change of ownership of the vehicle, for vehicles less than four model years old.

I. EXECUTIVE SUMMARY

The Air Quality Control Commission (the Commission) has prepared this report for the General Assembly, as required by Section 42-4-306(9), Colorado Revised Statutes (C.R.S). In this report the Commission estimates the cost-effectiveness and the air pollution control-effectiveness of the Automobile Inspection and Readjustment Program (the AIR Program), and makes recommendations for changes to the program. This report focuses on the enhanced emission testing program component (IM240) because the majority of the vehicles are tested through this program component and IM240 represents the greatest cost.

The Commission estimates the program carbon monoxide benefit ranges from 10% to 34%, depending on the measurement methodology used. Remote sensing studies estimate a 10% benefit, inspection lane data 12%, and computer modeling 17% (Cold CO) to 34% (MOBILE 5b). A performance audit conducted in 1999 for the Legislative Audit Committee estimated the program benefit, to range from 8-17% but did not quantify the impact of the AIR Program based on ambient carbon monoxide levels. The 1998 performance audit was unable to quantify any impact of the current AIR Program on ambient carbon monoxide concentrations. The impact of the IM240 program could not be separated from the many other factors (new vehicle technology, meteorology, etc.) affecting ambient air quality.

The 1999 program performance audit concluded that Colorado may not need an inspection and maintenance program to maintain compliance with national air quality standards in the future. The audit also concluded, based on a November 30, 1999 carbon monoxide standard exceedance, that the state may want to implement a modified IM240 program to maintain good air quality until new technology vehicles comprise a larger portion of the fleet. The auditor further concluded that if a program does continue it should focus on older technology, high emitting vehicles where the greatest benefit could be realized.

Newer model year cars and trucks, particularly low emissions vehicles (LEV's) and vehicles equipped with on-board diagnostics (OBDII) emit considerably lower emissions than their predecessors. Furthermore, newer vehicles have a much lower deterioration rate in emissions as these vehicle age and accumulate miles. This trend is anticipated to continue.

During 2001, approximately 1.4 million initial emissions inspections were performed with approximately 1,000,000 inspections in the enhanced area and 400,000 in the basic area. Approximately 250,000 of the total inspections were performed due to transfer of vehicle ownership. Approximately 500,000 other vehicles in the fleet were exempted from inspection due to the new vehicle exemption for the first four model years.

Vehicles in the enhanced program failed at a rate of 6.7% for the IM 240 inspection test procedure and 18.5% for the enhanced idle test procedure. The failure rate in the basic program areas of Larimer, El Paso, and Weld counties was 14.7%. The net cost of the total program during 2001 was approximately $39.8 million. Estimates of the cost-effectiveness of the

enhanced program range from $200 to $700 for each ton of carbon monoxide eliminated by the program.

In late 1999, the Regional Air Quality Council submitted a request for re-designation and the required maintenance plan demonstrating attainment of the carbon monoxide standard for the Denver metropolitan area. The proposal was adopted by the Air Quality Control Commission on January 10, 2000, and was approved by EPA on December 14, 2002, effective January 14, 2002. The State now has an opportunity to establish a program that is less costly and more convenient for the citizens of Colorado while still maintaining air quality standards.

II. PURPOSE AND STATUTORY BASIS FOR THIS REPORT

Section 42-4-306(9), C.R.S., requires that the Commission evaluate the AIR Program and submit a report to the General Assembly by July 1 of each year. This report is required to address the following topics: 1) the air pollution control effectiveness of the program, 2) the cost-effectiveness of the program, and 3) recommendations for changes in the program. The evaluation of the air pollution control effectiveness of the program includes: 1) a determination of the number of vehicles that fail to meet the applicable emissions standards after the repairs are made, 2) an assessment of the methods of controlling exhaust gas emissions from the motor vehicles equipped with microprocessor-based emissions control systems and on-board diagnostic systems, and 3) an assessment of in-use vehicle emissions performance levels by random testing of a representative sample of at least one-tenth of one percent of the vehicles subject to the enhanced emissions program requirements. This report also includes a section from the Department of Revenue, as required by Section 42-4-305(11), C.R.S.

III. AIR POLLUTION CONTROL EFFECTIVENESS OF THE AIR PROGRAM

The purpose of the AIR Program is to reduce automotive emissions through the detection and repair of excessively emitting vehicles. Vehicles that fail an emissions test must pass a subsequent retest in order to operate within the program area, unless they qualify for a waiver. The effectiveness of Colorado's AIR Program is based on the emissions reductions resulting from the repair of vehicles that exceed established standards for carbon monoxide, hydrocarbons, and oxides of nitrogen. The program benefit is derived from the effective repair of failing vehicles.

There are four ways to measure the air pollution reductions that may be attributed to the AIR Program. They are: 1) measurements of ambient air quality data; 2) on-road emission measurements using remote sensing; 3) IM240 inspection lane data; and 4) estimates using EPA's MOBILE model. Ambient air quality studies have not been able to quantify the ambient carbon monoxide (CO) benefit attributable to the AIR Program. On-road remote sensing measurements have measured benefits of 10% for CO and no benefits for hydrocarbons and nitrogen oxides. EPA's MOBILE 5 model estimates an overall benefit of 34% for CO that can be attributable to the AIR Program.

The air pollution control effectiveness of the AIR Program may be reduced in several ways. First, motorists may register their vehicle outside the program area. Second, approximately 21% of the vehicles that failed the IM240 test procedure did not pass a subsequent retest; some or all of these vehicles may continue to operate in the program area without repairs. Third, there is little enforcement of the prohibition against smoking vehicles. Fourth, repairs as measured in the inspection lanes may not be effective or long lasting. Finally, statutory exemptions and waivers knowingly allow some high-emitting vehicles to operate in the program area. For example, motor vehicles registered as collector's items are exempt from periodic inspection requirements, and high-emitting vehicles that cannot be repaired effectively are entitled to a Certification of Emissions Waiver if the owner spends the required amount ($450) on appropriate repairs.

Additional emissions reductions may be derived as a result of motorists performing maintenance on their vehicles to avoid failing an inspection; or by retiring older, problematic vehicles. However, this may also occur absent any emissions testing program. The benefits of these potential emission reductions have not been quantified in this report.

A. Inspection and Repair Effectiveness

The inspection and repair effectiveness of the program is a function of 1) rapid and proper identification of vehicles exceeding established emissions standards, and 2) making the repairs successful in reducing the emission rates of these vehicles. This section of the report discusses the following:

1. Identification of Vehicles with Emission Rates Greater Than the Standard
2. Program Compliance
3. Repair Effectiveness
4. Vehicle Sample Included in This Evaluation
5. Vehicles That Fail to Pass the Test After the Required Repairs
6. Methods of Controlling Emissions from Vehicles Equipped with Microprocessor-Based Emission Control Systems and On-Board Diagnostic Systems

1. Identification of Vehicles with Emissions Rates Greater Than Standards

The AIR Program uses regularly scheduled emissions tests to identify vehicles with emissions greater than the prescribed standards. The IM240 test is used on 1982 and newer light-duty motor vehicles in the Denver metropolitan enhanced program area. The idle test is used on 1981 and older vehicles and all heavy-duty motor vehicles in the enhanced program area. The idle test is also used on all vehicles in the basic program areas.

In 2001, 833,122 vehicles underwent IM240 testing in the enhanced program area. Of these, 55,915 vehicles failed their first emissions test, resulting in a failure rate of 6.7%. Also in 2001 127,760 vehicles underwent the two speed idle test in the enhanced program area. Of these, 23,600 failed their initial test, resulting in a failure rate of 18.5%. There were 367,808 initial idle test inspections performed in the basic area (Colorado Springs, Greeley, and Fort Collins areas), resulting in 54,100 initial failures for an average failure rate of 14.7%.

On-road emission measurements using remote sensing devices, have shown that some vehicles driven in the Denver area have not been inspected, have not been effectively repaired after failing an emissions test, have malfunctioned since their last inspection, or have registered outside the program area.

Although the IM240 test effectively identifies vehicles with excess exhaust emissions, the enhanced program has not been as effective as anticipated in repairing high emitting vehicles, detecting vehicles with excess evaporative emissions, and detecting smoking vehicles.

2. Program Compliance

The AIR Program is designed and intended to prohibit motorists from registering a vehicle unless the vehicle has complied with the inspection requirements. Some motorists may be able to avoid the emissions test by registering vehicles outside the program area. In 2001, approximately 21% of the vehicles that failed the IM240 inspection "disappeared" from the program, down from 23% in 2000. These vehicles were not retested after having failed the initial test. It is uncertain what happens to these vehicles. Some of them may be sold for scrap or transferred to someone who lives and works outside the program area. It is likely that some of these vehicles continue to operate within the program area.

A 1999 staff analysis of 300 suspect vehicles sampled from the group that disappeared was conducted in the 1995-96 time frame to learn more about vehicles that had apparently not completed the inspection process. The study concluded that approximately 4% of the failing vehicles were re-registered in the program area without complying and 16% of the failing vehicles were registered outside of the program area. It is unclear if these vehicles continued to operate in the program area or not. The Commission recommends that additional analysis be conducted to better understand the disposition of the disappearing vehicles.

Remote sensing technology has the potential to detect on-road high-emitting vehicles and vehicles that may be operating illegally in the program area. Identification alone of high emitting vehicles does not reduce vehicle emissions. Enforcement of compliance with the required emission standards for these vehicles needs to be expanded.

3. Repair Effectiveness

Inspection station data indicate that repairs to failing vehicles significantly reduced the emissions of carbon monoxide. Vehicles that failed their initial IM240 test (55,915) emitted an average of 41 grams of carbon monoxide per mile. On a passing retest these same vehicles emitted an average of 12 grams of carbon monoxide per mile. This is a 71% reduction in the amount of carbon monoxide emitted by these vehicles. As a point of comparison, new cars must meet a 3.4 grams per mile standard. Light-duty trucks that failed their initial test emitted an average of 49 grams of carbon monoxide per mile. On a passing retest these same vehicles emitted an average of 15 grams per mile. This is a 69% reduction in the amount of carbon monoxide emitted by these vehicles. Vehicles that initially fail and subsequently passed a retest are assumed to have been repaired, although remote sensing data suggest that repairs are only half as effective as

measured by IM240 lane results. Vehicles that passed the IM240 test on the initial attempt emit an average of 6 grams of carbon monoxide per mile.

In the Denver Remote Sensing Clean Screening Pilot (December, 1999) 23 vehicles were identified that were observed by Remote Sensing Device (RSD), failed an initial IM240 test, passed a subsequent IM240 test and were measured by RSD, after the repair, (Source: Denver Remote Sensing Clean Screen Pilot, 12/99). Observed changes between the before and after RSD tests were 46%, 38% and 0% respectively for HC, CO and NO_x.

When the same 23 vehicles were matched to their IM240 records, a 76% and 81% reduction for HC and CO respectively were identified. There was a 25% increase in NO_x. The statistical significance of a 23-vehicle sample size should be considered when comparing RSD and IM240 results. The IM240 inspection monitors vehicle emissions throughout a variety of operating modes, where RSD is a snapshot during a single operating mode. This is likely the cause of the difference in emissions values between the two inspection types.

The inspection station data show that motor vehicle repairs reduce emissions of hydrocarbons. Hydrocarbons are a group of pollutants that contribute to ground level ozone pollution. Vehicles that failed their initial IM240 inspection emitted an average of 3 grams of hydrocarbons per mile. Upon passing a retest, these same vehicles emitted an average of 1 gram of hydrocarbons per mile. This is a 66% reduction in the amount of hydrocarbons emitted by these vehicles.

The inspection station data also show that vehicles passing a retest have increased emissions of oxides of nitrogen. This result is expected because many repairs that reduce carbon monoxide and hydrocarbon emissions tend to increase the emissions of oxides of nitrogen. Oxides of nitrogen are another pollutant that contribute to the formation of ground level ozone pollution but under some conditions may potentially cause a decrease in ozone.

The Commission is concerned about the durability of the repairs mandated by the program. One study from California suggests that appropriate repairs to failing vehicles are more costly than short-term repairs designed only to pass the test, and that complete repairs may cost more than motorists are required to spend under the current statutory waiver provisions.

A 1999 staff analysis compared 1996 passing IM240 test results (after failure) with 1998 initial IM240 test results for the same vehicles to investigate the durability of repairs. This analysis showed that over the two-year period repairs to older vehicles resulted in a higher increase in the emissions of carbon monoxide than did repairs to newer vehicles. Increases in carbon monoxide emissions varied from an average of 15 grams per mile for older vehicles to less than 1 gram per mile for newer vehicles. This variation in repair durability is related to the emission control technology changes that have occurred over time. Results also showed that vehicles repaired for excess carbon monoxide emissions had reduced emissions of hydrocarbons.

4. Vehicle Sample Included in this Evaluation

The AIR Program performance assessment contained in this report is more comprehensive than the minimum requirement, which requires an analysis of in-use vehicle emissions based on a representative sample of at least one-tenth of one percent of the vehicles subject to the enhanced

inspection program. The database analyzed represents greater than fifty percent of the vehicles in the Denver metropolitan area. The program performance review discussed in this report is not based on all vehicles in the program due to the biennial inspection cycle for 1982 and newer vehicles.

The vehicle emissions database contained in this report reflects two primary groups of emissions data. IM240 inspection lane data represent the initial and if applicable, final test results. Two speed idle inspection data represent all idle inspections conducted including multiple inspection results for certain applicable vehicles.

5. Vehicles That Fail to Pass the Test after Required Repairs

Section 42-4-306(9)(b), C.R.S. requires a determination of the number of motor vehicles that fail to meet the applicable emission standards after the required repairs are made. During 2001, 866 waiver applications, which includes 36 "Hardship" waivers were qualified and approved for an emissions waiver. These vehicles emit approximately 3.1 excess tons of carbon monoxide daily or 558 tons per year. This requirement is more fully discussed in section V of the report.

During 2001 the AQCC held public hearings to consider an increase of the enhanced area repair waiver limit from the current $450 to a cost-of-living adjusted $690. Several factors were evaluated including:

- The small incremental benefit to air quality;
- The increased hardship imposed on lower income individuals;
- The potentially negative impact on the re-designation process;
- The potentially negative impact of increased program avoidance.

Based on these and other factors, the Commission elected to maintain the waiver limit at its current $450 threshold. Additionally, in 2001 the Commission gained greater flexibility in establishing waiver limits with the passage of HB 01-1402.

6. Methods of Controlling Emissions from Vehicles Equipped with Microprocessor-Based Emissions Control Systems and On-Board Diagnostic Systems

This requirement applies to 1981 and newer vehicles. The inspection procedure for these vehicles includes a visual check to ensure that the overall system integrity is intact and the indicator light for the emissions control system is not illuminated during normal engine operation. Failure rates based on this portion of the inspection range from almost no failures for new vehicles to approximately 4% for 1982 model year vehicles.

B. Quantifying the Air Quality Benefit of the Program

The air quality benefit of the AIR Program may be estimated using four distinctly different methods: 1) evaluation of ambient air quality data; 2) measurement of on-road fleet emissions; 3) analysis of inspection station data; and 4) computer modeling. Because these four approaches yield very different results, one of the Commission's goals is to provide a more meaningful

evaluation of the air pollution control effectiveness of the program in the future. This baseline would help the Commission overcome the obstacles to useful evaluation of the program. The Commission recommends that the General Assembly appropriate the funds necessary for such a study.

The 1999 State Auditor report did not attempt to analyze the air quality benefit from the AIR Program to ambient carbon monoxide levels. Singling out the contribution of this program alone would be costly and time consuming, if not impossible. There are multiple programs including Federal new car standards, vehicle turnover, oxygenated fuels, and of great significance, meteorology; all affecting ambient carbon monoxide levels. The 1998 program performance audit was not able to quantify the impact of the current AIR Program on ambient carbon monoxide levels for the same reason. Long-term improvements in air quality are evident when analyzing the past 10 to 20 years of data.

C. Improving the Air Pollution Control-Effectiveness of the Program

The Commission believes that a broader application of remote sensing technology will improve the air pollution control-effectiveness of the program. Remote sensing is a method for monitoring vehicle emissions while simultaneously photographing the license plate when a vehicle passes through infrared and ultraviolet beams of light.

Remote sensing technology provides a means for the Department to identify on-road high-emitting vehicles. It also helps to determine whether motorists are continuing to drive vehicles in the program area after failing an emissions test, or if a malfunction has occurred since the last inspection. This technology can identify motorists who avoid the program by illegally registering high-emitting vehicles outside the program area.

Rapid identification and repair of smoking vehicles is another way to improve the air pollution control-effectiveness of the program. Smoking vehicles produce fine particles, which are a major contributor to the "brown cloud" observed in the Denver area. Each month, the Department receives more than 500 complaints about smoking vehicles. Within the City and County of Denver, City inspectors are trained to enforce the smoking vehicle law. Of 514 sightings, 318 citations were issued in the Denver area for smoking vehicles in 2001. The fine for the first violation of the State's smoking vehicle law is $100 suspended fine plus $29 court costs. Fines for subsequent violations are $100 suspended from the first violation, plus an additional fine based on City Attorney's judgement. More effective enforcement, additional utilization of training resources for law enforcement and/or environmental officers, and increased penalties will reduce the number of smoking vehicles. Training to detect and repair smoking vehicles is available through the Department.

The Commission recommends that the statute should provide greater penalties and more incentives for law enforcement agencies to enforce the smoking vehicle law. The program should provide for rapid identification and repair of smoking vehicles.

IV. COST EFFECTIVENESS OF THE PROGRAM

The Commission estimates that the entire program cost was approximately $39.8 million for 2001. This figure reflects the costs of both the enhanced program and the basic program. The IM240 component of the program cost $32.5 million in 2001.

Estimates of the cost-effectiveness of the program vary. Variations in the estimates of cost-effectiveness are due to the different methods that may be used to estimate the air pollution control effectiveness of the program. Cost-effectiveness is measured in terms of the monetary cost of reducing the emissions of carbon monoxide by one ton.

A. Calculation of Program Costs

The cost of the AIR Program consists of inspection costs, repair costs, and registration renewal fees used to fund administrative costs. Calculation of program costs does not include the expense of motorists' time and mileage necessary to demonstrate compliance with the program. The biennial fee for the IM240 inspection in the enhanced area is $24.25. The annual fee for the idle test has an upper limit of $15, but varies by test provider. Registration renewal fees include a $2.20 fee to offset the cost of enforcing and administering the program.

The average cost of repairs for vehicles failing the IM240 inspection is $267. The average cost of repairs for a vehicle failing the idle test in the enhanced area is $161. The average cost of repairs for vehicles failing the two-speed idle test in basic areas is $131. These repair costs are based on a survey of individual vehicles that required repairs. The cost of the program is offset by increased fuel economy to repaired vehicles. Emission repairs tend to improve fuel economy. The EPA estimates a 12% fuel economy improvement for vehicles repaired to pass an IM240 test, saving the motorist $98 annually, and an 8% fuel economy improvement for vehicles repaired to pass an idle test, saving the motorist $28 for Enhanced area and $64 for the Basic area vehicles annually. In these calculations, fuel economy improvements and repairs are assumed to last for two years. Information from other states suggest that EPA's fuel economy improvement rates may be slightly high.

B. Cost-Effectiveness

The Commission has estimated the cost-effectiveness of the program based on remote sensing, inspection station data, and computer modeling. Each method yields different results. The cost-effectiveness estimates range from $200 to $700 per ton of carbon monoxide reduction, reflecting the uncertainties associated with the estimates used to derive emission reductions associated with the program.

C. Improving the Convenience and the Cost-Effectiveness of the Program

A public opinion survey conducted of the IM240 Program that was released in April of 1999 showed that 61% of those surveyed rated the program as excellent and 27% rated the program as good. However, the Commission believes that it is not cost-effective or necessary to inspect all vehicles in order to locate the relatively small number of excess emitting vehicles that need to be repaired. A clean or dirty screen program can reduce the number of motor vehicles that must be tested at inspection stations. A clean or dirty screen program requires inspections for only those vehicles that are identified to be producing emissions greater than the standards. Clean screening vehicles can consist of remote sensing, emissions profiling, and model year exemptions. A clean or dirty screen program would be more convenient for the public and should be less costly than the current program configuration.

Flexibility to design a program that will rapidly identify and repair the smallest number of vehicles necessary to maintain compliance with the national ambient air quality standards is recommended.

The Commission also recommends that its statutory authority to develop a clean or dirty screen program should not be limited to a program based on remote sensing. While remote sensing appears promising, there are still unresolved technical, political, and administrative questions that cannot be answered without real-world experience. The Commission requests the flexibility to phase-in a clean or dirty screen program and to make appropriate adjustments as remote sensing data become available.

The Commission recommends that its statutory authority be broad enough to modify the scope of the exemptions from inspection requirements for new motor vehicles. The existing exemption for motor vehicles up to four model years old is a no-cost means of clean screening. This exemption may be inconsistent with a clean screen program based on remote sensing. It should be noted that newer, high mileage vehicles such as delivery vehicles, vehicles poorly maintained, or newer vehicles that have malfunctioned prior to the expiration of their exemption do operate in the metro area. Identifying these vehicles could be facilitated through a remote sensing screening process. The Commission also recommends that its authority should be broad enough to make program adjustments to maintain the national ambient air quality standards in the least costly manner.

Well-maintained vehicles tend to be clean vehicles. The Commission believes that program performance could be improved by a public information campaign to publicize the harm to air quality that is produced by high-emitting vehicles and the air quality benefits of good vehicle maintenance.

V. ANNUAL REPORT FROM THE COLORADO DEPARTMENT OF REVENUE

The Department of Revenue operated the enhanced centralized emissions test system in the Denver metro area in 2001 for the seventh consecutive year of the program. It was also the seventh year that two different programs and two different emissions test procedures were utilized at the same time within Colorado's Front Range.

2001 Program Performance

Licenses:

Basic area inspection and repair stations -	230
Basic area fleet inspection and repair stations -	9
Enhanced area inspection only (1981 and older model year) stations -	18
Enhanced area fleet inspection only stations -	25
Centralized contractor test centers (77 lanes) -	15
Basic area emissions mechanics -	1516
Enhanced area inspectors for 1981 and older vehicles -	255
Contractor Inspectors -	401

Forms:
The Department of Revenue issued the following control document forms in 2001:

Vehicle Inspection Report (VIR) -	1,028,000
Verification of Emission Test Sticker -	828,000
New Vehicle Exemptions -	233,200

Audits Performed:

Performance Audits -	1954
Equipment Audits -	1060
Covert Audits -	396

Revenues Collected:
In 2001, the Department of Revenue collected $610,455 from the sale of AIR Program documents that was transferred to the AIR account.

Waivers:
In 2001, 1599 waiver applications were submitted and processed by the Department of Revenue. Of those applications, 830 or 52% met statutory requirements and were approved. The major causes for waiver rejection were as follows:

- **Improper repairs to the vehicle** - repairs performed that did not address the cause of the emissions failure.
- **No after repairs failing retest** -vehicle had not completed the required after repairs test indicating the vehicle continues to fail after completion of necessary repairs.

- **Minimum waiver limits for dollars spent to repair the vehicle had not been met -** vehicle owner had not incurred the minimum $450 in repair costs attempting to bring the vehicle into compliance

In 2001, Department of Revenue issued an additional 36 hardship waivers to vehicle owners as a result of an economic hardship qualified by documented public assistance or welfare.

Hardship waivers can be issued one time for the life of the vehicle in accordance with the inspection cycle. The hardship waiver will allow the vehicle to be registered for either one year or two years depending on the vehicle model year. Of all applications for hardship waivers (included in the total waiver applications above), approximately 25% met the criteria for approval.

Complaints:
During 2001, the Department of Revenue received a total of 923 complaints. The contractor had 819 of these complaints filed against them. Independent emission stations and licensed motor vehicle dealers had 104 complaints filed against them. The contractor complaints included wait time issues, personnel issues, location of centers, damage to vehicles, test fees, and payment methods. Complaints about the contractor were proven to be unfounded 40% of the time.

Complaints concerning independent stations and licensed dealers included personnel issues, emissions requirements when selling vehicles, repair effectiveness, and test procedures. Independent stations and motor vehicle dealer complaints were proven to be unfounded 49% of the time. A total of $347,966 was returned to motorists as a result of complaint negotiations conducted by the Department of Revenue.

Hearings:
The Department of Revenue conducted 60 hearings in 2001 for violations of program law or regulations. The contractor was involved in 21 administrative hearings, 21 station violations, and 21 inspector violations. The independent stations were involved in 39 hearings, 39 station violations, and 39 inspector violations.

Performance Aspects:
Several major issues are monitored for performance. These issues included wait time violations, overall wait times by vehicles on average, and consumer approval rating.

Contractor complaint resolution performance improved over previous years. The Department and the contractor improved the process used when resolving consumer complaints.

Legislative Recommendations: None at this time.

Envirotest Systems Violation Summary:

- Lane Wait Time Violations in 2001 were 102 for a total of $29,200
- Covert Audit Violations in 2001 were 38 for a total of $11,700
- Operational Violations in 2001 were 42 for a total of $12,000