



A REPORT  
TO THE  
ARIZONA LEGISLATURE

Performance Audit Division

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Performance Audit

# Department of Environmental Quality—

## Vehicle Emissions Inspection Program

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December • 2007  
REPORT NO. 07-12



**Debra K. Davenport**  
Auditor General

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**STATE OF ARIZONA**  
**OFFICE OF THE**  
**AUDITOR GENERAL**

**DEBRA K. DAVENPORT, CPA**  
AUDITOR GENERAL

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DEPUTY AUDITOR GENERAL

December 3, 2007

Members of the Arizona Legislature

The Honorable Janet Napolitano, Governor

Mr. Stephen A. Owens, Director  
Arizona Department of Environmental Quality

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Arizona Department of Environmental Quality (Department)—Vehicle Emissions Inspection Program (Program). This report is in response to an October 5, 2006, resolution of the Joint Legislative Audit Committee and was conducted as part of the sunset review process prescribed in Arizona Revised Statutes §41-2951 et seq. but does not include an evaluation of the 12 sunset factors because Laws 2007, Ch. 171, §2 extended the Program's sunset date until January 1, 2017.

As outlined in its response, the Department agrees with the finding and plans to implement all of the recommendations.

My staff and I will be pleased to discuss or clarify items in the report.

This report will be released to the public on December 4, 2007.

Sincerely,

Debbie Davenport  
Auditor General

Enclosure

# SUMMARY

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The Office of the Auditor General has conducted a performance audit of the Department of Environmental Quality—Vehicle Emissions Inspection Program (Program) pursuant to an October 5, 2006, resolution of the Joint Legislative Audit Committee. This audit was conducted as part of the sunset review process prescribed in Arizona Revised Statutes (A.R.S.) §41-2951 et seq.<sup>1</sup> This audit evaluated how well the Department of Environmental Quality (Department) monitors the contractor that conducts the emissions tests.

The Program, begun in 1976, is limited to the Phoenix and Tucson metropolitan areas. An independent consultant reported in 2005 that the Phoenix Program effectively reduced emissions by requiring vehicles that fail tests to be repaired. In fiscal year 2007, more than 1.4 million vehicles were tested, and of these, nearly 200,000 failed the test on the first try. About 150,000 received repairs and passed a subsequent test. The current contractor, who administers 13 testing stations in Phoenix and 3 in Tucson, has held the contract since 1991. In July 2007, the Department again awarded the contract to this contractor for a 7-year period beginning in January 2009. The new contract includes provisions for lower vehicle testing fees, three new testing stations in the Phoenix area, and shorter customer wait times.

[Department should adjust its monitoring activities to improve effectiveness, efficiency, and coverage \(see pages 13 through 21\)](#)

The contractor and the Department have developed a good framework for ensuring that vehicle emissions testing is properly conducted, with the contractor performing most of the quality control activities. Both parties periodically audit vehicle testing equipment to ensure accurate measurements. The contractor also has a program to ensure the equipment is properly calibrated, and the Department receives reports that can allow it to see if any testing lanes deviate significantly from the average in their pass/fail rates. The contractor and the Department also review the performance of the inspectors who conduct the tests.

<sup>1</sup> A sunset audit normally includes an evaluation of the agency using 12 factors set forth in A.R.S. §41-2954. This report does not include an evaluation using the 12 factors because Laws 2007, Ch. 171, §2 extended the Program's sunset date until January 1, 2017.

Although the contractor and the Department have developed a good framework, the Department may be able to reduce the number of its audits. The Department's rules require it to perform more equipment audits than federally required and the contractor conducts many equipment audits. In addition, the contractor's program for ensuring that the equipment is properly calibrated will not allow employees to use the equipment if the checks are not performed or if the equipment is found out of calibration. Similarly, both the Department and the contractor are reviewing inspectors' performance. Contract monitoring best practices indicate that monitoring frequency and extent can be reduced when results demonstrate consistent, satisfactory performance. The Department should evaluate whether it can reduce its number of audits and still meet monitoring objectives.

Reducing the number and frequency of equipment and inspector audits would allow the Department to use the freed-up resources to address other aspects of the monitoring process. For example, although audits are frequently conducted, there is a lack of followup to ensure that equipment failing audits is repaired and that the contractor takes corrective actions when inspectors fail audits. In realigning its efforts, the Department would benefit from developing a comprehensive contract monitoring plan, including assessing whether employees need additional training to perform the new monitoring practices.

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# INTRODUCTION & BACKGROUND

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The Office of the Auditor General has conducted a performance audit of the Department of Environmental Quality—Vehicle Emissions Inspection Program (Program) pursuant to an October 5, 2006, resolution of the Joint Legislative Audit Committee. This audit was conducted as part of the sunset review process prescribed in Arizona Revised Statutes (A.R.S.) §41-2951 et seq.<sup>1</sup> This audit evaluated how well the Department of Environmental Quality (Department) monitors the contractor that conducts the emissions tests.

## Program history

The State of Arizona established the Vehicle Emissions Inspection Program in 1976 to reduce vehicle emissions and improve air quality.<sup>2</sup> The Legislature limited the Program to the Phoenix and Tucson metropolitan areas, where higher vehicle populations reduced air quality. Because these areas did not meet federal air quality standards by 1982, the State had to include the vehicle emissions inspection program in its State Implementation Plan (see textbox). The Program, which originally fell under the jurisdiction of the Department of Health Services, has functioned under the Arizona Department of Environmental Quality since the Department's creation in 1987. Since its inception, the Program has consisted of a centralized vehicle emissions testing program with most vehicle emissions testing services provided by an independent contractor. Motorists can choose to have the Department test their vehicles if the vehicles have twice failed emissions tests performed by the contractor.

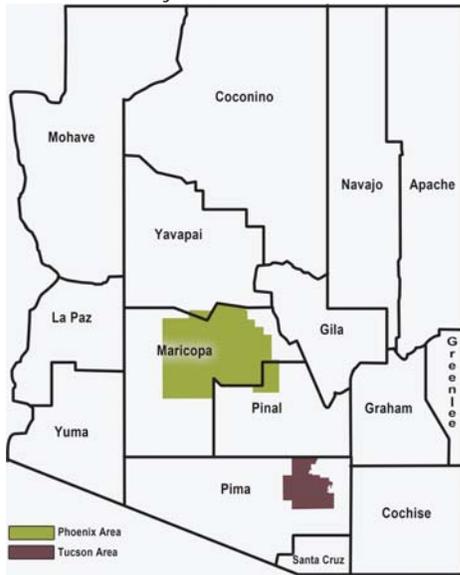
### State Implementation Plan (SIP)

The federal Clean Air Act amendments of 1970 required the Environmental Protection Agency (EPA) to establish standards to protect public health from air pollution. Amendments passed in 1977 called on states to attain national air quality standards for carbon monoxide and ozone—two pollutants caused primarily by vehicle emissions—no later than December 31, 1982. States were required to develop and implement State Implementation Plans, which detailed how the national standards would be attained.

<sup>1</sup> A sunset audit normally includes an evaluation of the agency using 12 factors set forth in A.R.S. §41-2954. However, this report does not include an evaluation using the 12 factors, because Laws 2007, Ch. 171, §2 extended the Program's sunset date until January 1, 2017.

<sup>2</sup> Although at inception the Program covered only Maricopa and Pima Counties, the boundaries have changed over time. As of 2007, A.R.S. §49-542 requires emissions testing in Area A, which includes parts of Maricopa, Pinal, and Yavapai Counties, and in Area B, which includes part of Pima County. This report will refer to Area A as the Phoenix area and Area B as the Tucson area. Other areas in the State are not required to perform testing and, according to the Department, local governments do not elect to require emissions testing.

Figure 1: Areas Requiring Emissions Testing in Arizona As of July 30, 2007



Source: Auditor General staff analysis of information contained on the Department's Web site as of July 30, 2007.

Program regulations have changed over time. At inception, the Legislature established both the Phoenix and Tucson areas as "basic" inspection and maintenance (I/M) programs that tested vehicles for carbon monoxide (CO) and hydrocarbon (HC) emissions. Vehicles not meeting EPA emissions standards for these gases could not be registered until they were repaired and met the standards. In 1995, because Phoenix did not meet EPA air quality standards, the Legislature changed the Phoenix area to an "enhanced" I/M program, which has more stringent emissions and testing requirements than the basic I/M program. For example, vehicles must also meet oxides of nitrogen (NOx) emissions standards and 1981 through 1995 vehicles must take a transient load test (see Appendix, page a-i) which is not required of vehicles in the Tucson area. Because of better air quality than Phoenix, the Tucson area has continued as a basic I/M program. As population growth has increased over the years, the Phoenix testing area has expanded. Figure 1 shows the Phoenix and Tucson testing areas' boundaries as of July 30, 2007. Additionally, in 2007 the Legislature passed air quality legislation to help reduce

ozone levels in the Phoenix area by requiring a test to identify and repair liquid fuel leaks in vehicles.<sup>1</sup>

## Program provisions

The Program operates to identify vehicles with emissions that exceed EPA standards and to require repair so that vehicles will meet the standards. Most vehicles located in the Phoenix and Tucson areas must successfully pass an emissions test before registering with Arizona's Motor Vehicle Division, but some vehicles are exempt from testing. Although the majority pass the initial test, almost 14 percent fail. Most of those vehicles later pass after some repairs; some of those that fail may qualify for a one-time waiver and become registered.

**Vehicles requiring testing**—Vehicles located in the Phoenix and Tucson testing areas generally must pass emissions testing annually or biennially before being registered. In addition, most vehicles located outside the Phoenix and Tucson testing areas that regularly commute into these areas must also be tested. The required emissions tests and frequencies differ by test area, vehicle type, and vehicle age (see Appendix, page a-i). Arizona statutes exempt some categories of vehicles from emissions testing, including:

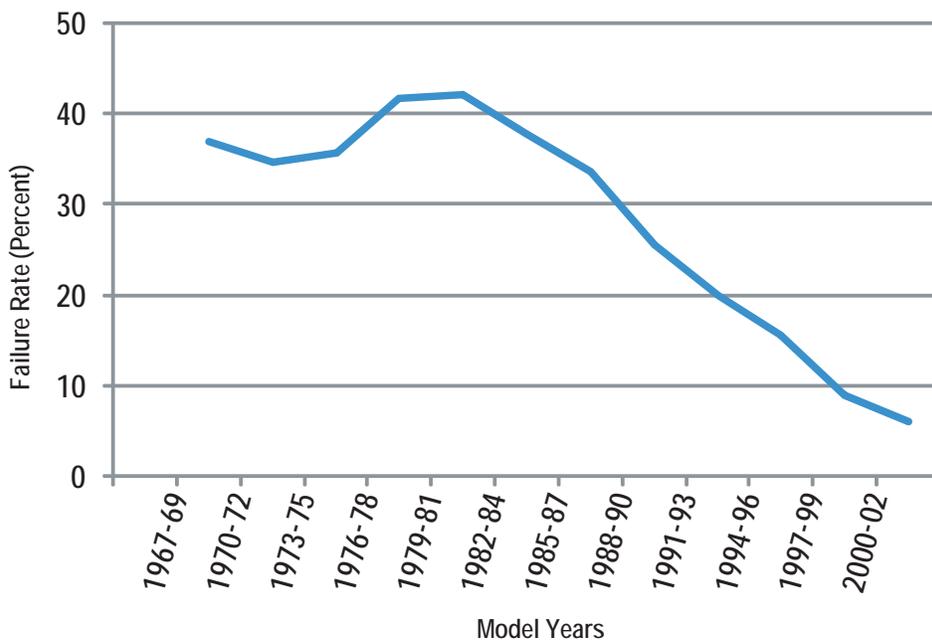
Some vehicles are exempt from emissions testing requirements.

<sup>1</sup> Although effective on September 19, 2007, according to a department official, the legislation cannot be implemented until at least mid-2008 because of required processing steps, such as department development of new testing procedures, rule-making, changes in the testing contract, contractor creation of new testing procedures, and contractor employee training.

- Vehicles manufactured before 1967 and most vehicles of the current model year and four prior model years;
- Golf carts, rare vehicles, and historic collectible vehicles; and
- Motorcycles in the Tucson area (in the Phoenix area, motorcycle testing and repairing provides significant emissions reductions, according to a 2004 department evaluation).

Vehicle age is a significant factor in failure rates, as shown in Figure 2. For example, for vehicles tested in calendar year 2006, only 5.5 percent of model year 2002 vehicles failed their initial emissions tests as compared to 44.1 percent of model year 1979 vehicles.

Figure 2: Emissions Test Failure Rate by Vehicle Model Year  
Calendar Year 2006<sup>1</sup>



<sup>1</sup> Model years 2003 and later were exempt from vehicle emissions testing in calendar year 2006.

Source: Auditor General staff analysis of the Department's inspection statistics by model year for calendar year 2006.

**Testing results**—The Program has identified a significant number of over-polluting vehicles, most of which were repaired and became emissions-compliant. As illustrated in Table 1 (see page 4), in fiscal year 2007, almost 14 percent of the more than 1.4 million contractor-tested vehicles state-wide failed their initial emissions tests, but most were repaired and passed a retest. Specifically, in fiscal year 2007 the contractor tested 998,488 vehicles in the Phoenix area and 417,530 vehicles in the Tucson area. Phoenix-area vehicle failure rates were at 15.2 percent, which was higher than the 10.6 percent Tucson-area failure rate, probably because of Phoenix's more stringent emission standards. According to the contractor's

Although 14 percent of vehicles failed initial emissions testing, most later passed after being repaired.

records, 46,190, or 3.3 percent, of contractor-tested vehicles did not become emissions-compliant and were not registered in the Phoenix or Tucson areas. Vehicles that do not pass emissions testing or receive a test waiver cannot be registered and operated within the test area.

**Failing vehicles**—In accordance with statute, the owner of a vehicle failing the initial emissions test has several options. First, the owner can have the vehicle repaired and receive one free retest within 60 days of the initial test. A vehicle failing the second time may receive further repairs and be tested again, but the owner may have to pay another testing fee. Additionally, the owner may choose to remove the failed vehicle from operation. Finally, if certain requirements are met, the owner can go to one of the two department-operated waiver stations and request a once-in-a-vehicle-lifetime certificate of waiver. This waiver allows the vehicle to be registered for one registration cycle without passing emissions testing. As shown by Table 1, less than 0.1 percent of all tested vehicles received waivers in fiscal year 2007.

**Table 1: State-wide Emissions Test Results for Contractor Initial Tests Fiscal Year 2007**

Result	Number of Vehicles	Percentage of Initial Tests
Initial test results:		
Vehicles that initially passed	1,220,290	86.18%
Vehicles that initially failed	<u>195,728</u>	<u>13.82</u>
<b>Total vehicles initially tested</b>	<b><u>1,416,018</u></b>	<b><u>100.00%</u></b>
Outcomes for the 195,728 failed vehicles:		
Passed later after repairs	148,207	10.47%
Granted a waiver	1,331	0.09
No record of passing or registering	<u>46,190</u>	<u>3.26</u>
<b>Total vehicles that initially failed</b>	<b><u>195,728</u></b>	<b><u>13.82%</u></b>

Source: Auditor General staff analysis of the contractor's data on initial test results, waivers, free retest, and paid retest reports for fiscal year 2007.

The Department may grant a waiver when a vehicle meets several requirements:

- the vehicle's emissions malfunction was diagnosed and the vehicle received a low emissions tune-up following the initial failure;
- it failed the contractor's emissions test at least two times;
- it is not emitting more than two times the applicable emission standard;
- it does not have a faulty catalytic converter; and
- additional repair costs to reduce emissions levels would exceed the maximum repair cost limits established in department rules (see Table 2, page 5).

**Table 2:** Maximum Repair Cost Limits to Qualify for Waivers  
As of July 5, 2007

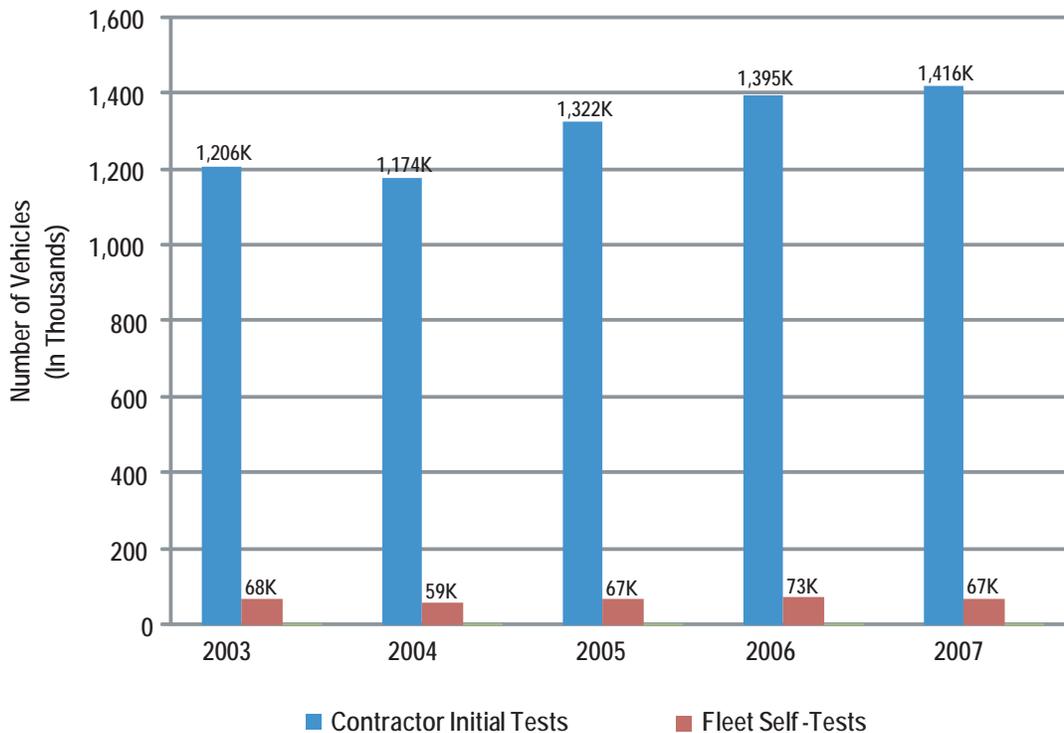
Vehicle Description	Phoenix Area	Tucson Area
1980 and newer	\$450	\$300
1975—1979	300	200
1974 and older	200	50
Heavy-duty diesel	500	300

Source: Arizona Administrative Code R18-2-1010 as of July 5, 2007.

**Fleet vehicles may self-test**—Although the contractor provides most testing, almost 5 percent of emissions testing is done by fleet self-test facilities. Arizona law allows fleet owners who lease or own 25 or more vehicles to self-test their own vehicles for emissions compliance. If electing this option, the fleet owner applies for a permit from the Department and is subject to the same vehicle emissions testing requirements as the contractor, with the exception that car dealers with fleet permits only perform low-idle and high-idle (2,500 rpm) tests. Figure 3 shows the number of contractor and fleet initial vehicle emissions tests for fiscal years 2003 through 2007.

Almost 5 percent of vehicles that require emissions testing are self-tested by fleet owners.

**Figure 3:** Comparison of Contractor Initial Tests and Fleet Self-Tests  
Fiscal Years 2003 through 2007



Source: Auditor General staff analysis of emissions testing statistics and monthly sales from fleet self-test and certificates of inspections provided by the Department for fiscal years 2003 through 2007.

**Testing performed at contractor facilities**—With the exceptions of fleet self-testing and testing performed at the department-run waiver stations, all testing is performed by the contractor using testing facilities and equipment it owns. The current contractor, Gordon-Darby Inc., has provided vehicle emissions testing in Arizona since 1991 and as of July 2007 operated 13 testing stations with 56 lanes in Phoenix and 3 testing stations with 13 lanes in Tucson. Effective July 25, 2007, the Department awarded a new 7-year contract to Gordon-Darby Arizona Testing with new features effective January 2, 2009.

As stipulated in the current contract, the contractor's operation of its testing facilities must meet several contract-required performance standards or the contractor must pay a fine called "liquidated damages" for loss of productivity. As of July 2007, the Department reported that the contractor had always met these standards and therefore never had to pay any liquidated damages. The contractor's failure to meet ongoing performance standards results in liquidated damages when:

- More than 40 percent of customers wait longer than 15 minutes, or more than 20 percent of customers wait longer than 30 minutes;
- Testing lane downtime exceeds 0.5 percent of available lane hours;
- None of a station's lanes are able to provide testing services for more than a total of 4 hours per day; and
- Daily, weekly, monthly, quarterly, semi-annual, and annual reports are submitted late to the Department.

The new contract starting on January 2, 2009, will provide several customer service improvements, including lower vehicle testing fees (see Table 3, page 9), higher performance standards regarding customer wait times, additional testing equipment to reduce customer wait times, three new testing stations in the Phoenix area, and acceptance of credit card payments. Additionally, the contractor plans to implement several automated system improvements, including improved security cameras for identifying license plate numbers of vehicles being tested and computer system changes to identify vehicles that do not require testing or have already successfully passed a test within the past 90 days. According to the Department, this last improvement is in response to previous customer complaints.

The new testing contract provides lower test fees and higher performance standards.

## Program effectiveness

Independent consultants have reported on the Program's effectiveness. The Eastern Research Group's (ERG) June 30, 2005, report evaluated the Phoenix-area emissions testing program and found that the Program effectively reduced emissions by requiring vehicles that fail tests to be repaired. ERG found that the Program reduced emissions for dangerous gases such as hydrocarbons, carbon monoxide, and nitrogen oxide. However, based upon information in an ERG 2006 report, emissions could be further reduced by ensuring that vehicles registered outside the Phoenix and Tucson areas are not commuting into these areas without receiving emissions testing. Also, the 2006 report stated that data from vehicles tested by both tailpipe measurements and the relatively new "on-board diagnostic" (OBDII) test indicate that the OBDII may not be identifying some vehicles designated as high-emitting by tailpipe tests (see OBDII in Appendix, page a-i), but additional testing and analysis are needed to verify OBDII performance. In 2007, the Department hired an individual who served as a consultant for ERG on the previous studies to conduct another effectiveness study of the Phoenix area. According to a department official, the report will be available sometime after January 1, 2008.

Consultant studies concluded that the testing program has effectively reduced vehicle emissions.

## Department's organization for emissions testing

The Department's Vehicle Emissions Inspection Section (Section) inspects the contractor and the fleet self-inspection test sites to verify compliance with testing requirements. The Section also conducts waiver testing and carries out administrative functions. As of August 2007, the Department was divided into five units with a total of 33 full-time equivalent (FTE) employees, of which 3 positions were vacant. According to department management, these are:

- Phoenix Inspections and Compliance Unit (9 FTE, 1 vacant)—This unit monitors Phoenix-area emissions testing activities and licenses and trains inspectors, and researches new technology in both the Phoenix and Tucson areas. Three positions provide supervisory and clerical support. Four positions inspect contractor stations and fleet self-test facilities by conducting equipment and inspector audits. According to the unit manager, the unit spends about 60 percent of its time monitoring contractor stations and 40 percent of its time monitoring fleet stations. Two positions train, test, and license the fleet self-test inspectors in both the Phoenix and Tucson areas. Although the contractor trains and tests its own employees, the unit licenses the contractor inspectors in both the Phoenix and Tucson areas who receive successful examination scores as provided by the contractor. The unit also monitors contractor training classes. The remaining two employee positions provide supervisory and clerical support.

- Phoenix Operations Unit (9 FTE, 1 vacant)—This unit operates the emissions waiver station in Phoenix, tests vehicles for emissions compliance, inspects and evaluates repairs performed on vehicles failing emissions testing, makes recommendations to vehicle owners regarding future potential repairs, and determines if the vehicle meets all waiver requirements. This unit also tracks waiver-lane statistics and calibrates waiver-lane equipment.
- Tucson Operations Unit (7 FTE, 0 vacant)—This unit performs for the Tucson area most of the duties that are performed in the Phoenix area by both the Phoenix Operations Unit and the Phoenix Inspections and Compliance Unit. These duties include operating the Tucson waiver station and performing equipment and inspector audits at fleet stations and the three Tucson contractor stations.
- Program Support and Evaluation Unit (3 FTE, 1 vacant)—This unit receives and reviews all required daily, weekly, monthly, quarterly, semiannual, and annual reports from the contractor. It monitors financial and emissions testing activity reports and reconciles information among the various contractor reports. This unit provides required reporting to the EPA based upon contractor-provided data. The unit also performs routine checks of financial reports to ensure contractor billings are correct, analyzes data, and provides reports to government, public, or private institutions.
- General Administrative Unit (5 FTE, 0 vacant)—This unit performs general administrative functions for the entire emissions testing program. It also provides office support for the Phoenix waiver station by staffing the front desk and the call center, and assisting customers by processing payments for out-of-state/out-of-area exemptions, self-test fleet inspection certificates, waiver and inspection certificates, and out-of-state exemptions. Further, this unit partners with the contractor to provide public information through a vehicle emissions testing Web site that includes digitally captured screens of vehicle wait lines at test sites, current wait time estimates, fee and waiver information, exemption qualifications, and various other public information regarding the Program.

## Budget

The Program is self-funded through test fees charged to motorists at the time of inspection. The contractor collects the total test fee and deposits the monies directly into a department bank account established exclusively to receive contractor testing fees. The State Treasurer then transfers the money into the Emissions Inspection Fund (Fund) based on a deposit form completed by the Department. The Department then pays the contractor its fee amount from the Fund. The Department determines test fees based on the types of tests administered, the vehicle model

The vehicle emissions testing program is self-funded by testing fees.

year, and the test area. In addition, the Department charges a \$15 fee for all waiver applicants, but does not charge the fee if a waiver is denied. The total test fee paid by motorists consists of both a contractor testing fee component and an administrative fee component. The administrative component is used to fund the Department's administration and program oversight activities. Current and future testing fees are shown in Table 3. Because of more stringent testing procedures in Phoenix, testing fees and categories differ between the Phoenix and Tucson areas.

**Table 3:** Emissions Testing Fees as of May 14, 2007 and Under the New Contract Effective January 2, 2009

	As of May 14, 2007			January 2, 2009	
	Contractor Fee	Administrative Fee	Total Fee	Contractor Fee	Total Fee
<b>Phoenix Area</b>					
1981 and newer cars and most light-duty trucks (under 8,501 lbs.) that receive Transient Load or On-Board Diagnostic II tests	\$25.94	\$1.81	\$27.75	\$13.50	TBD <sup>1</sup>
Most other vehicles (except heavy-duty diesels)	17.05	1.95	19.00	13.50	TBD <sup>1</sup>
Heavy-duty diesel vehicles (greater than 8,500 lbs. GVW)	25.94	2.06	28.00	23.50	TBD <sup>1</sup>
<b>Tucson Area<sup>2</sup></b>					
All vehicles	11.39	0.86	12.25	NA	NA
Biennial On-Board Diagnostic II test for 1996 and newer light-duty vehicles	NA	NA	NA	13.50	TBD <sup>1</sup>
All annual tests for 1967 to 1995 vehicles including light-duty diesels	NA	NA	NA	10.50	TBD <sup>1</sup>
Heavy-duty diesel vehicles (greater than 8,500 lbs. GVW)	NA	NA	NA	23.50	TBD <sup>1</sup>

<sup>1</sup> As of August 24, 2007, the Department had not determined the administrative fee amount it will charge beginning January 2009. TBD signifies that the amount is yet to be determined.

<sup>2</sup> Prior to calendar year 2009, the Tucson testing fee is the same for all vehicles. Beginning in calendar year 2009, the testing fee will differ by test type.

Source: Auditor General staff analysis of fee data provided by the Department and the contract pricing schedule included in the awarded contract beginning calendar year 2009.

The majority of program spending comprises payments to the contractor.

Table 4 below shows the Fund's actual revenues and expenditures for fiscal years 2005 through 2007. As shown by the table, most expenditures are for payments to the contractor for emissions testing and other contract services.

**Table 4:** Schedule of Revenues, Expenditures, and Changes in Fund Balance  
Fiscal Years 2005 through 2007  
(Unaudited)

	2005	2006	2007
<b>Revenues:</b>			
Emission inspection program fees <sup>1</sup>	\$31,485,003	\$32,948,951	\$33,667,495
Investment earnings	<u>1,951</u>	<u>30,512</u>	<u>51,310</u>
Total revenues	<u>31,486,954</u>	<u>32,979,463</u>	<u>33,718,805</u>
<b>Expenditures:<sup>2</sup></b>			
Personal services and employee-related	1,385,904	1,451,496	1,516,647
Professional and outside services <sup>3</sup>	29,745,716	29,615,792	30,284,928
Travel	46,888	46,473	39,554
Other operating	191,724	172,840	140,242
Equipment	13,794	6,910	21,832
Allocated costs <sup>4</sup>	<u>515,834</u>	<u>540,034</u>	<u>555,527</u>
Total expenditures	<u>31,899,860</u>	<u>31,833,545</u>	<u>32,558,730</u>
Excess (deficiency) of revenues over expenditures	(412,906)	1,145,918	1,160,075
Fund balance, beginning of year	<u>741,406</u>	<u>328,500</u>	<u>1,474,418</u>
Fund balance, end of year <sup>5</sup>	<u>\$ 328,500</u>	<u>\$ 1,474,418</u>	<u>\$ 2,634,493</u>

<sup>1</sup> Consists primarily of testing fees collected by the Department's vehicle emissions program vendor. The vendor collected approximately \$30.6, \$32, and \$32.8 million in 2005, 2006, and 2007, respectively.

<sup>2</sup> Administrative adjustments are included in the fiscal year paid.

<sup>3</sup> Consists primarily of contract payments made to the Vehicle Emissions Inspection Program vendor for operating the Program in Maricopa and Pima Counties.

<sup>4</sup> Amount is the portion of department-wide overhead expenditures allocated to the Vehicle Emissions Inspection Program, such as administrative personnel, rent, general accounting, telecommunications system, and risk management costs.

<sup>5</sup> As required by A.R.S. §49-544, VEIP monies can be used only for program enforcement activities, vendor contractual payments, program administrative costs, and the State's portion of the catalytic converter program.

Source: Auditor General staff analysis of the Department's *Fund Balancing Worksheet* for fiscal years 2005 through 2007.

## Scope and methodology

This audit focused on the Department's monitoring of the vehicle emissions testing program contractor. The report contains one finding and associated recommendations that the Department should adjust its monitoring of the vehicle emissions testing contractor to improve effectiveness, efficiency, and coverage.

Auditors used a number of methods to obtain information about the issues addressed in this report. General methods included reviewing federal code, Arizona statutes and administrative rules, the State Implementation Plan, the *Vehicle Emissions Front Office Policy and Procedure Manual*, and the *Inspection and Compliance Unit Manual*; and interviews with department management, staff, and stakeholders, including EPA representatives. In addition, the following specific methods were used:

- To evaluate the Department's contract monitoring activities, auditors observed the inspections process alongside a department compliance officer while the officer inspected a contractor test site; reviewed the 1994 and 2001 SIP Revisions, the Inspection and Compliance Unit audit schedule, and audit procedures contained in the *Vehicle Emissions Section's Inspection and Compliance Unit Manual*. Further, auditors reviewed HC gas analyzer audit reports for the contractor and the Department for 1 year to compare failure rates; performed a file review of department audits of the contractor including all inspector and equipment audits recorded from 2002 through 2007; and reviewed department equipment failure notifications for March through June 2007. To assess department compliance with audit schedules and EPA requirements, auditors reviewed department files for failed equipment calibrations of gas analyzers for all four gases (HC, CO, carbon dioxide, and NOx) from May 2006 through April 2007. To obtain information about customer satisfaction, auditors reviewed the Marketing Intelligence survey reports for 2005 and 2006. Auditors reviewed authoritative literature regarding contract management and contractor documents, such as the Surveillance and Audit Plan, Preventative Maintenance Plan, Training Plan, and Standard Operating Procedures Manual; and reviewed contractor reports, including the Performance Information Report, Surveillance and Audit Report, Covert Audit Report, and Audited Financial Statements.<sup>1</sup> Finally, to observe department and contractor relations, auditors attended one biweekly operations meeting between the Department and the contractor where day-to-day station operations issues such as Web site errors and test station traffic were discussed, and attended one biweekly program manager meeting where department and contractor staff discussed program issues such as testing procedures and audits.

<sup>1</sup> Literature reviewed included Texas Building and Procurement Commission. *Contract Management Guide*. Mar 1, 2007. Texas Building and Procurement Commission. Aug. 21, 2007; National State Auditors Association. *Contracting for Services. A National State Auditors Association Best Practice Document*. Lexington, KY: National State Auditors Association, 2003; and the Washington State Office of Financial Management contract monitoring guidance found at [http://www.ofm.wa.gov/contracts/resources/managing\\_monitoring.pdf](http://www.ofm.wa.gov/contracts/resources/managing_monitoring.pdf).

- To prepare the Introduction and Background section, auditors reviewed department-prepared information including an organization chart, program history document, a comparison of emissions program characteristics among 32 states and the District of Columbia, and its Web site; documents from other agencies, such as the 2005 EPA Inspector General Report, the Governor's Office of Strategic Planning and Budgeting (OSPB) Master List of State Government Programs 2005-2007, a July 2007 press release on emissions legislation, the 1988 Auditor General performance audit report on the Vehicle Emissions Inspection Program (see Report No. 88-11), and the Joint Legislative Budget Committee (JLBC) appropriations report for fiscal year 2008; and third-party documents such as the July 2007 Gordon-Darby Best and Final Offer and the 2005 Eastern Research Group emissions program effectiveness study. Auditors also reviewed the Department's fiscal years 2005, 2006, and 2007 Fund Balancing Worksheet reports for the Vehicle Emissions Inspection Fund; Bank of America bank statements; reports from the Department's system based on information input from the bank statement and deposit slips; the Monthly Deposit Reconciliation Report; the deposit slips for two deposits; a Gordon-Darby Daily Recap Sheet and a weekly and monthly contractor billing to the Department for emission services; a state treasurer deposit form; and a department accounts payable spreadsheet.

This audit was conducted in accordance with government auditing standards.

The Auditor General and staff express appreciation to the Director and staff of the Department of Environmental Quality and its Air Quality Division and Vehicle Emissions Inspection Section for their cooperation and assistance throughout the audit.

# FINDING 1

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## Department should adjust its monitoring activities to improve effectiveness, efficiency, and coverage

A good overall vehicle emissions program quality control and monitoring framework is in place, but the Department should adjust its monitoring to improve effectiveness, efficiency, and coverage. Under the current framework, the contractor and the Department both perform quality control and monitoring activities focused on equipment testing, inspector performance, and customer service. The Department may be able to reduce some monitoring activities and should redirect its resources to follow up on identified problems and conduct other important monitoring activities. Further, the Department should develop and implement a contract monitoring plan to help ensure more efficient, effective, and comprehensive monitoring coverage.

### Good overall quality control and monitoring framework in place

The contractor and the Department have developed a good framework for ensuring that vehicle emissions testing is properly conducted, with the contractor performing most of the quality control activities. The quality control and monitoring activities focus on the following three main areas:

- **Vehicle Emissions Testing Equipment**—The contractor and the Department are required by the emissions testing program contract and federal regulations to audit various emissions testing equipment to ensure accurate vehicle emissions measurements. For example, they are required to test and audit the gas analyzers that are used to measure tailpipe emissions to ensure that the analyzers are properly calibrated and measure gas levels, such as carbon dioxide and monoxide, within acceptable tolerance. It is vital that the gas analyzers accurately measure harmful gas volumes to properly identify vehicles exceeding allowable emissions levels.

The Department and the contractor verify that testing equipment works properly.

The contractor's and the Department's equipment quality control and monitoring includes several other activities. For example, the emissions testing contract requires the contractor to implement a preventive maintenance and quality control program and to properly calibrate and maintain testing equipment. To meet these requirements, the contractor has established a series of periodic automatic equipment calibration checks to ensure emissions testing equipment will accurately measure vehicle emissions. Additionally, the Department receives contractually required monthly reports from the contractor, such as vehicle pass/fail rates that it can review to compare failing rates by lane to identify lanes that significantly deviate from the average. Such a deviation may indicate that equipment is not measuring correctly or inspectors are not testing appropriately.

#### Overt Inspector Audits:

The inspectors are aware that contractor management or the Department is auditing their performance by observing them performing the emissions tests.

#### Covert Inspector Audits:

Persons unknown to inspectors present vehicles for emissions testing that have been pre-set to fail the inspections and record whether the inspectors conducted the tests according to procedures.

- **Lane Inspector Performance**—The contractor and the Department also focus on evaluating the performance of the lane inspectors through overt and covert inspector audits (see textbox). Lane inspectors are contractor employees who perform the vehicle emissions tests in the testing lanes. These audits, required by the emissions testing program contract and federal regulations, are designed to ensure that the lane inspectors perform the emissions tests according to proper procedures, which are designed to ensure valid testing results. Additionally, the contractor performs covert observations where it observes inspectors through video camera surveillance.

Inspector performance audits are based on contractual and regulatory requirements. For example, the emissions testing program contract requires the contractor to submit a surveillance and audit plan. The contractor's plan provides for quarterly overt inspector audits and at least one covert audit per inspector position per year. Additionally, the Department's administrative rules require the Department to perform a minimum of two overt lane inspector audits for each inspection lane on a yearly basis. In addition, the Department receives and reviews monthly contractor overt and covert inspector audit reports.

- **Customer Service**—The contractor and the Department also focus on providing a high level of customer service. Customer service practices are based on contractual and federal regulatory requirements. For example, federal regulations require that the emissions test system be designed to provide convenient service to motorists who are required to have their vehicles tested. To ensure prompt and timely customer service, the contract includes performance standards on customer wait times at testing stations and testing-lane downtimes. The Department receives contractor reports that allow it to verify that performance standards are met. The contract also requires the contractor to provide a Web site with station wait times; the contractor went even further by providing maps and station queue cameras that show actual waiting lines. Additionally, the Department receives contractually required monthly vehicle damage complaint and complaint resolution reports from the contractor that can be used to monitor inspection station performance and contractor customer relations interactions.

Further, processes are in place for customers to comment on the quality of services provided. Customers provide the feedback directly to the contractor through customer comment forms, which are offered to the customer as an option to address their comments or concerns regarding inspection station personnel. The contractor then reports the feedback to the Department in a monthly customer comment report. Additionally, contractor employees are required to consult with owners of failed vehicles after the emissions tests to help them understand why their vehicles failed. Finally, the public demonstrated its satisfaction with the contractor's customer service efforts in independently administered surveys in which 72.5 percent of respondents in 2005 and 76 percent in 2006 rated their satisfaction level at 4 or 5 on a 5-point scale with 5 being the highest level of satisfaction.<sup>1</sup>

Surveys in 2005 and 2006 have found a high level of customer satisfaction.

In addition to these three areas, the Department oversees the emissions program's financial controls by reconciling emissions test activity and contractor billing reports. The Department reconciles contractor billing reports to emissions testing data on a weekly and monthly basis as an internal accuracy check to verify that the contractor correctly calculated billing amounts.<sup>2</sup> Then monthly, the Department reconciles contractor revenue deposits, based on deposit slips and bank statements, to expected revenues, based on emissions test counts and billing reports.<sup>3</sup>

## Department may be able to redirect its monitoring practices

The Department should evaluate whether it can reduce some of its audits and shift those resources to fulfilling federal requirements and verifying contractor compliance with contract provisions that the Department has not monitored. In conjunction with considering these changes, the Department should develop an annual plan for monitoring the contractor's performance.

**Department and contractor conduct many equipment and inspector audits**—The Department's rules require it to perform more equipment audits than federally required, and the contractor conducts a large number of equipment and inspector performance audits. In addition, the Department's and the contractor's equipment audits find similar failure rates, which provides assurance that the Department may be able to reduce its audit numbers and also monitor contractor audit results to ensure satisfactory contractor performance. The contract monitoring best practices indicate that when monitoring results

The Department and contractor conduct many audits.

- 1 Marketing Intelligence. *Phoenix/Tucson Emissions Testing Survey Results*. Tucson, Arizona., Aug 18, 2005. Marketing Intelligence. *Emission Testing Knowledge and Campaign Efficacy*. Tucson, Arizona. Sep. 7, 2006.
- 2 The Department reported that in the last 2 years the reconciliations rarely found discrepancies, but that it had frequently found errors when the reconciliations were first implemented.
- 3 Minor discrepancies, less than .07 of 1 percent, have been found because of differences in test date and deposit date for the collected emissions test fee amounts.

demonstrate consistent, satisfactory performance, monitoring frequency and extent may be adjusted accordingly.<sup>1</sup> Specifically:

- **Equipment Audits**—The Department's rules provide for more equipment audits than federal regulations require, and the contractor's audit plan provides even more audits. For example, although federal regulations require that gas analyzer audits be conducted only semiannually, the Department's administrative rules require it to conduct these audits every other month in the Phoenix area and bimonthly in the Tucson area. In addition, the contractor generally audits the analyzers at least monthly. Auditors reviewed contractor automated reports for contractor and department gas analyzer audits conducted in fiscal year 2007 and found that the Department conducted 242 audits and found a 2.07 percent failure rate, and the contractor conducted 760 audits and found a 1.32 percent failure rate. The difference between the two failure rates is not statistically significant.

The contractor has additional system and internal controls, which reduce the need for the Department to conduct equipment audits. In order to allow emissions tests to be performed, the contractor's emissions testing system requires periodic equipment calibration checks that verify equipment is properly calibrated within tolerances. These automated checks must be done every morning before lane opening, every 4 hours thereafter in Phoenix or every 5 hours thereafter in Tucson, and immediately preceding each vehicle emissions inspection. Any equipment failing a periodic check is automatically locked out of operation and cannot be used for vehicle emissions testing until properly calibrated or repaired. As an additional check, the contractor reported that it reviews calibration reports daily to identify marginal equipment (see textbox) and performs preventative maintenance before that equipment exceeds allowable tolerances. These checks help provide reasonable assurance that some failing equipment will be identified in a timely manner. However, audits are still needed because the system calibration checks mostly verify the zero and the highest value that the equipment can read, while audits verify accurate readings between those two points and more thoroughly examine the equipment. In addition, according to a department official, equipment operators can adjust equipment settings after failing an automatic calibration and barely pass within tolerances, whereas the equipment may be out of tolerance for other measurements and later exceed tolerance again for the zero and high values. Further, the automatic calibrations check measurements directly at the equipment, while audits simulate measurements through the entire emissions testing system.

### Marginal Equipment

EPA regulations allow testing equipment tolerances or accuracy to be plus or minus 4 percent of the highest value the equipment can measure. The contractor considers equipment to be marginal when its reading tolerances reach plus or minus 3 percent.

- **Inspector Audits**—Both the Department and the contractor conduct inspector performance audits. The Department's rules require the Department to conduct semi-annual inspector performance audits as required by federal

1 Washington State Office of Financial Management contract monitoring guidance found at [http://www.ofm.wa.gov/contracts/resources/managing\\_monitoring.pdf](http://www.ofm.wa.gov/contracts/resources/managing_monitoring.pdf).

regulation. In addition, the contractor, through its contract-required surveillance and audit plan, has obligated itself to conduct these audits quarterly for each of its inspectors. Auditors' review of department audit reports for 2005 and 2006 found that the Department had conducted 135 inspection lane audits in the Phoenix area and found a 2 percent failure rate. Auditors' review of contractor audit summary sheets for the same period found that the contractor had conducted 2,735 audits of inspectors and found a 10 percent failure rate. The Department audits inspectors using a 19-item checklist, but the contractor uses a 44-item checklist that includes reviewing many specific inspector actions that are less significant to the emissions testing outcome. For example, one contractor inspection criterion not included on the department checklist is assessing whether the inspector gave the customer the option to sit in the vehicle passenger seat during vehicle testing.

In line with contractor monitoring best practices, the Department should evaluate whether it can conduct a smaller random sample of equipment and inspector audits and compare the results with the contractor's audit failure rates to verify that contractor performance is satisfactory. The Department should also consider planning equipment and performance audits on a risk basis using the results of the contractor's audits to determine risk areas. As appropriate, the Department should revise its administrative rules to allow these changes.

**Followup on adverse audit results is limited**—By reducing the number and frequency of equipment and inspector audits, the Department should use its resources to address areas of weakness in its monitoring processes. Specifically, the Department does not provide followup on equipment and inspector audits. The Department does not track the status of equipment failing its audits, nor does it adequately ensure that the contractor takes corrective actions when inspectors fail audits. Followup on equipment audit failures is critical because, unlike the contractor's periodic system checks, both the Department's and the contractor's audit failures will not trigger a system lockout to prevent equipment from being used until it is properly calibrated. The need for equipment followup is compounded because the contractor does not consistently provide the Department with timely evidence that it has repaired equipment. The Department reported that it is developing a formal follow-up system for failed equipment.

Followup on inspectors who fail audits is also critical because the Department relies on the contractor to suspend and retrain, or terminate, noncompliant inspectors, instead of the Department suspending or revoking the inspector's license. According to department officials, the Department relies on the contractor to discipline the emissions inspectors who fail audits because the contractor can take immediate action, whereas the Department's formal license discipline process would take too long and would allow deficient inspectors to continue inspecting vehicles. However, the Department does not have a formal follow-up process to ensure that the contractor takes appropriate and timely corrective

The Department has not established and conducted adequate audit followup.

The Department lacks written criteria to assess when an inspector has failed to demonstrate the ability to conduct a proper emissions inspection.

action when inspectors fail audits. The Department's lack of followup could allow an inspector who failed an audit (for example, by passing a vehicle that should have failed an inspection) to continue to conduct emissions tests.

According to the Department, its administrative rules are ambiguous regarding suspending and revoking an emissions inspector's license when he/she fails an audit. One rule appears to require mandatory license suspension, but another rule appears to give the Department some discretion. The rules do not define what an inspector must successfully do to demonstrate that he/she has the ability to conduct a proper emissions inspection. Further, the Department does not have any written criteria regarding which department or contractor audit checklist items or combination of items, if failed, results in an inspector failing to demonstrate the ability to conduct a proper emissions inspection. The Department should confer with its Assistant Attorney General regarding the need to modify its administrative rules and/or its and the contractor's audit checklists to establish criteria for determining when an inspector fails to demonstrate the ability to properly conduct an emissions inspection, and should have his/her license suspended or revoked.

Department should conduct required federal monitoring and verify contractor compliance with contract provisions that Department has not monitored—In addition to improving audit follow-up, the Department should adjust its contract monitoring activities to include contract provisions and federal requirements that it has not previously monitored. For example, the Department should perform activities such as:

- **Periodically evaluating contractor quality assurance and quality control procedures**—The Department has not conducted these EPA-required reviews, which are intended to evaluate whether the contractor's procedures would prevent, discover, and correct fraud, waste, and abuse. Such an evaluation would determine if the contractor is following procedures and that they are adequate. Further, it would allow the Department to identify any problems that may be impeding program performance. The Department could either conduct specific or comprehensive quality control reviews. An example of a specific review would be to evaluate contractor controls over confirming the identity of vehicles being emissions tested, whereas a comprehensive review would evaluate the contractor's quality control system as a whole to identify vulnerabilities and then testing controls to ensure that the contractor uses them and they are working as intended.
- **Verifying the contractor's compliance with its surveillance schedule and audit plan**—Contract provisions require the contractor to submit a detailed surveillance and audit plan and schedule, but the Department has not verified that the contractor has adhered to its plan and schedule. Verification would provide the Department with continued assurance that the contractor is maintaining its levels of equipment and inspector performance audits.

- **Reviewing and ensuring that the contractor conducts other internal audits required by the contract**—The Department has not verified that the contractor has conducted various internal audits. The contract requires the contractor to conduct audits of management controls; program performance; contract conformance auditing; effectiveness of equipment maintenance and quality control activities; employee training, safety and security measures; employee integrity; and contractor adherence to laws, rules, policies and procedures, and applicable guidance. By reviewing such internal audits, the Department can identify risk areas in the contractor's operation and redirect its monitoring activities to address those areas.

**Contract monitoring plan needed**—As part of adjusting its monitoring activities and focusing on important monitoring elements, the Department should develop and implement an annual contract monitoring plan to help ensure more effective, efficient, and comprehensive coverage. Monitoring plans are important to identify what needs to be done and the resources to do it, but as of August 2007, the Department had no written monitoring plan. The Department should use a contract monitoring plan to identify those activities needed to adequately monitor the contractor's compliance with the many contractual and federal requirements, document how its monitoring activities will be carried out, and identify the required resources. A plan would also be helpful in ensuring that the level of monitoring is commensurate with the importance of the activity. Further, the Department should review the contract monitoring plan annually and make adjustments based on the contractor's success in meeting contract requirements and on the Department's risk assessments of monitored areas. To assist the Department in developing a plan, the Department may want to review the Texas and Washington contract monitoring guides.<sup>1</sup> These guides provide details that should enable the Department to develop a comprehensive monitoring plan and identify specific monitoring practices, such as corrective action follow-up procedures and sample contract monitoring documentation, to effectively track monitoring activities.

Finally, in developing the contract monitoring plan, the Department should assess whether its employees need additional training in specific contract monitoring activities and provide such training. By decreasing its focus on equipment and inspector performance audits, and increasing its focus on risk-based auditing and other monitoring activities, department employees may need training in new or different skills.

A contract monitoring plan is needed to prioritize and focus the Department's monitoring activities.

<sup>1</sup> Texas Building and Procurement Commission. *Contract Management Guide*. Mar. 1, 2007. Texas Building and Procurement Commission. Aug. 21, 2007. Washington State Office of Financial Management contract monitoring guidance found at [http://www.ofm.wa.gov/contracts/resources/managing\\_monitoring.pdf](http://www.ofm.wa.gov/contracts/resources/managing_monitoring.pdf).

## Recommendations:

1. In line with contractor monitoring best practices, the Department should evaluate whether it can conduct a smaller random sample of equipment and inspector audits and compare the results with the contractor's audit failure rates to verify that the contractor's performance is satisfactory. The Department should also consider planning equipment and performance audits on a risk basis using the results of the contractor's audits to determine risk areas.
2. As appropriate, the Department should amend its administrative rules to reduce the number of equipment and inspector audits it is required to conduct.
3. The Department should develop and implement a follow-up process for equipment and inspector audits that ensures that:
  - a. The contractor appropriately repairs equipment failing audits before returning it to service, and
  - b. Inspectors who fail department or contractor audits receive appropriate and timely corrective action, which may include the contractor retraining, suspending, or terminating noncompliant inspectors and/or the Department suspending or revoking licenses.
4. The Department should confer with its Assistant Attorney General regarding the need to modify its administrative rules and/or its and the contractor's audit checklists and make appropriate changes in rules and/or checklists to establish criteria for determining when an inspector fails to demonstrate the ability to properly conduct an emissions inspection, and should have his/her license suspended or revoked.
5. The Department should expand its contractor monitoring activities to provide more comprehensive coverage and include important monitoring activities not previously provided, such as:
  - a. Periodically evaluating contractor quality assurance and quality control procedures;
  - b. Verifying the contractor's compliance with its surveillance schedule and audit plan; and
  - c. Reviewing and ensuring that the contractor conducts other internal audits required by the contract.

6. The Department should develop and implement an annual contract monitoring plan to help ensure more effective, efficient, and comprehensive coverage of its monitoring activities.
7. In developing the contract monitoring plan, the Department should assess whether its employees need additional training in specific contract monitoring activities and provide any needed training.



# APPENDIX A

Test Type	Description
<b>Idle inspection*</b>	Used annually for 1967 to 1980 light-duty gas engines and 1967 to current heavy-duty gas engines in Area A and 1967 and newer light-duty and heavy-duty gas vehicles in Area B. The vehicle is tested at idle. This inspection measures emission while a vehicle is idled within 100 rpm (revolutions per minute) of the manufacturer's specified idle setting once readings have stabilized, or at the end of 90 seconds.
<b>Loaded cruise*</b>	Used annually for 1967 to 1980 light-duty gas engines and 1967 and newer heavy-duty gas engines in Area A and 1981 to 1995 light-duty gas and 1981 and newer heavy-duty gas vehicles in Area B. The vehicle is operated on a dynamometer, an apparatus for measuring mechanical power, at various loads and speeds of approximately 22 to 40 miles per hour (depending on vehicle class) while the tailpipe emissions are measured until the readings for hydrocarbons (HC) and carbon monoxide (CO) have stabilized, or at the end of 90 seconds.
<b>On-Board Diagnostic (OBD) II*</b>	Used biennially in Area A and annually in Area B on 1996 and newer light-duty vehicles only, engine operating data is accessed by connecting directly to a computer in the vehicle that continuously monitors engine emission control systems operation. The on-board diagnostic test can identify problems before they lead to engine damage and emissions system failure.
<b>Transient load (IM147)*</b>	An enhanced test used biennially for most 1981 through 1995 gasoline-powered vehicles in Area A. In this test, the vehicle is driven on a dynamometer at varying speeds to simulate urban driving. The exhaust is continuously measured for 147 seconds and hydrocarbons (HC), carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ), and nitrous oxides (NO <sub>x</sub> ) emissions are shown in grams per mile.
<b>Diesel*</b>	Diesel vehicles are tested annually in Area A and Area B for opacity (smoke density). The test uses an opacity meter, which is an instrument that measures the percentage of opacity of the exhaust. Light-duty diesel vehicles in Area A and all Area B diesel vehicles are tested under load on a dynamometer. In Area A, heavy-duty diesel vehicles are tested using a procedure called "snap acceleration" or "snap idle," which consists of measuring the opacity of three, wide-open throttle, no-load accelerations from idle to maximum governed engine speed with the transmissions in neutral. The average opacity for the three accelerations cannot exceed the standard for the engine model year.
<b>Functional Gas Cap*</b>	Visual and functional inspection conducted for vehicles both in Area A and Area B in conjunction with other tests and ensures that gas fumes will not escape from the gas tank.

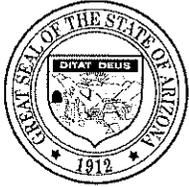
\*Vehicles may be required to take more than one type of test.

Source: Auditor General staff analysis of Arizona Administrative Code, Arizona Revised Statutes, the department Web site, and interviews with department management.



# AGENCY RESPONSE





Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Stephen A. Owens  
Director

November 27, 2007

Ms. Debra K. Davenport  
Auditor General  
2910 N. 44<sup>th</sup> Street, Suite 410  
Phoenix, AZ 85018

Re: Vehicle Emission Inspection Program Final Draft Report of Performance Audit

Dear Ms. Davenport:

The Arizona Department of Environmental Quality has reviewed the October 29, 2007, Preliminary Report Draft of the Performance Audit of the Vehicle Emissions Inspection Program. This letter provides the Department's response to the Final Draft Report.

ADEQ would like to acknowledge the diligence and hard work of the Auditor General's staff in performing this Performance Audit of this complicated Program.

Overall, the Department concurs with the Recommendation to develop a contractor monitoring plan. That plan will provide the Department with the data necessary to evaluate the frequency of needed audits, identify risk areas and better target the use of limited State resources and in that way, implement the balance of the Recommendations. Building on this concept, the Department will develop an overall program monitoring plan to encompass other components of the Vehicle Emissions Program. An overall program monitoring plan will provide to the Program a structured method for evaluating both the effectiveness of oversight of the contract/contractor and operational procedures including the staff performance.

**Recommendation:** In line with contractor monitoring best practices, the Department should evaluate whether it can conduct a smaller random sample of equipment and inspector audits and compare the results with the contractor's audit failure rates to verify that the contractor's performance is satisfactory. The Department should also consider planning equipment and performance audits on a risk basis using the results of the contractor's audits to determine risk areas.

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Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendation: As appropriate, the Department should amend its administrative rules to reduce the number of equipment and inspector audits it is required to conduct.

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendation: The Department should develop and implement a follow-up process for equipment and inspector audits that ensures that:

- The contractor appropriately repairs equipment failing audits before returning it to service, and
- Inspectors who fail department or contractor audits receive appropriate and timely corrective action, which may include the contractor retraining, suspending, or terminating noncompliant inspectors and/or the Department suspending or revoking licenses.

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendation: The Department should confer with its Assistant Attorney General regarding the need to modify its administrative rules and/or its and the contractor's audit checklists and make appropriate changes in rules and/or checklists to establish criteria for determining when an inspector fails to demonstrate the ability to properly conduct an emissions inspection, and should have his/her license suspended or revoked.

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendation: The Department should expand its contractor monitoring activities to provide more comprehensive coverage and include important monitoring activities not previously provided, such as:

- Periodically evaluating contractor quality assurance and quality control procedures;
- Verifying the contractor's compliance with its surveillance schedule and audit plan; and
- Reviewing and ensuring that the contractor conducts other internal audits required by the contract.

Ms. Debra K. Davenport  
November 27, 2007  
Page 3 of 3

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendation: The Department should develop and implement an annual contract monitoring plan to help ensure more effective, efficient, and comprehensive coverage of its monitoring activities.

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Recommendations: In developing the contract monitoring plan, the Department should assess whether its employees need additional training in specific contract monitoring activities and provide any needed training.

Response: The finding of the Auditor General is agreed to and the recommendation will be implemented.

Sincerely,

Stephen A. Owens  
Director

## Performance Audit Division reports issued within the last 24 months

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<b>06-01</b>	Governor's Regulatory Review Council	<b>07-01</b>	Arizona Board of Fingerprinting
<b>06-02</b>	Arizona Health Care Cost Containment System—Healthcare Group Program	<b>07-02</b>	Arizona Department of Racing and Arizona Racing Commission
<b>06-03</b>	Pinal County Transportation Excise Tax	<b>07-03</b>	Arizona Department of Transportation—Highway Maintenance
<b>06-04</b>	Arizona Department of Education—Accountability Programs	<b>07-04</b>	Arizona Department of Transportation—Sunset Factors
<b>06-05</b>	Arizona Department of Transportation—Aspects of Construction Management	<b>07-05</b>	Arizona Structural Pest Control Commission
<b>06-06</b>	Arizona Department of Education—Administration and Allocation of Funds	<b>07-06</b>	Arizona School Facilities Board
<b>06-07</b>	Arizona Department of Education—Information Management	<b>07-07</b>	Board of Homeopathic Medical Examiners
<b>06-08</b>	Arizona Supreme Court, Administrative Office of the Courts—Information Technology and FARE Program	<b>07-08</b>	Arizona State Land Department
<b>06-09</b>	Department of Health Services—Behavioral Health Services for Adults with Serious Mental Illness in Maricopa County	<b>07-09</b>	Commission for Postsecondary Education
		<b>07-10</b>	Department of Economic Security—Division of Child Support Enforcement
		<b>07-11</b>	Arizona Supreme Court, Administrative Office of the Courts—Juvenile Detention Centers

## Future Performance Audit Division reports

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Arizona Supreme Court, Administrative Office of the Courts—Juvenile Treatment Programs