

REPORT HIGHLIGHTS
PERFORMANCE AUDIT

Subject

In 1976, the Legislature established the Vehicle Emissions Inspection Program (Program) in the Phoenix and Tucson metropolitan areas to reduce emissions and improve air quality. The Program is a centralized vehicle emissions testing service provided by an independent contractor under the direction of the Department of Environmental Quality (Department).

Our Conclusion

The Program has a good overall vehicle emissions quality control and monitoring framework. However, the Department should evaluate whether it can conduct fewer audits of the contractor's equipment and inspectors. The Department should also redirect its resources to address other aspects of the monitoring process, including followup on identified problems.



2007

Program required in Phoenix and Tucson

The federal Clean Air Act prompted the State to adopt the Program in 1976. At the Program's inception, the Legislature established Phoenix and Tucson as "basic" inspection and maintenance programs that tested vehicles for carbon monoxide and hydrocarbons. Vehicles that failed the tests could not be registered until they were repaired and met standards.

In 1995, because Phoenix did not meet the EPA air quality standards, the Legislature changed the Phoenix area to an "enhanced" inspection and maintenance program with more stringent emissions and testing requirements. These increased standards required vehicle tests for nitrogen oxides emissions and required older vehicles (1981 through 1995) to pass a transient load test, which tests emissions while simulating urban driving. Tucson continued with the "basic" inspection and maintenance program.

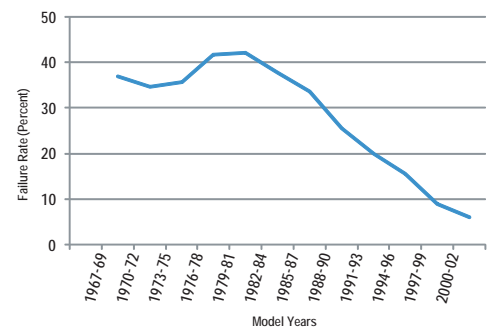
Vehicle age is a significant factor in failure rates. For example, in 2006 testing, 5.5 percent of model year 2002 vehicles failed, whereas 44.1 percent of model year 1979 vehicles failed.

Over 96 percent of all vehicles tested in fiscal year 2007 were ultimately registered. Over 86 percent of the 1.4 million vehicles passed their initial emissions tests, and most of those that did not initially pass passed a subsequent test after being repaired. The owner can repair a vehicle that failed the emissions test and have it retested for



Source: Department of Environmental Quality Web site.

Emissions Test Failure Rate By Vehicle Model Year Calendar Year 2006¹



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

free within 60 days of the initial test. If the vehicle failed a second time, the owner would have to pay for the retest. Of the total vehicles tested, only 3.3 percent (46,190) could not be repaired to pass the emissions test.

An owner may also petition for a once-in-a-vehicle-lifetime waiver that allows the owner to register the vehicle for one registration cycle without passing emissions testing. However, less than 0.1 percent (<1,400) of all tested vehicles received waivers.

Vehicles exempt from emissions testing:

- Current model and 4 prior years
- Rare, historic, or collectible vehicles
- Golf carts and motorcycles (Tucson)
- Vehicles made before 1967

Testing occurs at contractor facilities

The contractor, Gordon-Darby, Inc., has provided vehicle emissions testing at its testing stations in Arizona since 1991. The Phoenix area has 13 stations with 56 lanes, and Tucson has 3 stations with 13 lanes. The contractor was awarded a new contract beginning in 2009, with several customer service improvements, including:

- Lower vehicle testing fees
- Shorter wait times
- Additional testing equipment to reduce wait times
- Three new testing stations in the Phoenix area
- Acceptance of credit cards

Although the contractor provides most emissions testing, about 5 percent is done by fleet self-test facilities. Arizona law permits owners who lease or own at least 25 vehicles to self-test their fleet for

emissions compliance. Fleet owners apply to the Department for a permit and must adhere to the same emissions testing standards as the contractor.

Program has been effective

In 2005, the Eastern Research Group (ERG) evaluated the Phoenix-area emissions testing program. The study found that the Program effectively reduced emissions by requiring vehicles that failed tests to be repaired. ERG also found that the Program reduced emissions of hydrocarbons, carbon monoxide, and nitrogen oxides. 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.

Program has good quality control and monitoring framework

The emissions control contract and federal regulations require the contractor and the Department to ensure that the testing equipment measures vehicle emissions accurately and that the lane inspectors operate the equipment and conduct the testing appropriately.

The emissions contract also includes performance measures on customer wait times, requires contractor reports on performance measures, and requires the contractor to provide a Web site with station downtimes.

The contractor also provides online maps to stations and Webcam shots of actual waiting lines. The contractor received a 76 percent customer satisfaction rating in 2006.



Source: <http://65.82.88.75/queuecam/stationview.exe>

Some department monitoring should be redirected

Some monitoring practices should be redirected to followup and other monitoring. The Department's rules require more equipment audits than federal regulations require and best practices indicate. For example, federal regulations require semiannual gas analyzer audits. The Department's rules require it to conduct such audits every other month in the Phoenix area. In addition, the contractor conducts monthly equipment audits. The contractor also has automated checks of the equipment that occur before opening, every 4 or 5 hours thereafter, and immediately before each vehicle is tested. If it fails a check, the equipment is automatically locked down until it is recalibrated or fixed.

Federal regulations also require that lane inspectors are audited twice a year. The Department's rules require it to provide a semiannual audit. In addition, the contractor's audit plan requires it to conduct quarterly inspector audits.

The Department should evaluate whether it can reduce some audit frequencies and review contractor audit results to plan risk-based audits. By reducing the number and frequency of audits, the Department could use those resources to

ensure that the contractor corrects deficiencies detected by the audits. Currently, the Department does not track equipment or inspectors that fail audits or follow up to ensure that the contractor takes corrective action.

The Department has also not conducted EPA-required reviews to evaluate whether the contractor's procedures would prevent, discover, and correct fraud, waste, and abuse. Such a review would determine whether contractor procedures are adequate and whether they are being followed. The Department should also verify that the contractor is adhering to its audit and surveillance

schedule and plan. Further, the Department has not verified that the contractor has conducted the various required internal audits, such as management controls, equipment maintenance and quality controls, employee training and safety measures, and contractor compliance with laws, rules, and procedures.

A contract-monitoring plan would help the Department to adequately monitor contractor compliance with contract and federal requirements, document how it will conduct its monitoring, and identify the necessary resources.

Recommendations

The Department should:

- Evaluate whether it can conduct fewer audits and conduct risk-based audits considering the results of the contractor's audits.
- Amend its rules as appropriate to reduce audits.
- Develop and implement a follow-up process for audits.
- Expand contractor-monitoring activities to provide greater coverage and include areas not previously covered.
- Develop and implement a contract-monitoring plan.

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