EVALUATION OF THE CALIFORNIA
SMOG CHECK PROGRAM
USING RANDOM ROADSIDE DATA

Submitted by:

Air Resources Board
and
Department of Consumer Affairs/Bureau of Automotive Repair

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--FINAL--

2010 Addendum and Evaluation of the California Smog Check Program Using Random Roadside Data

ARB/BAR 2010 Addendum
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and
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Evaluation Report
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Sierra Research Report Number: SR09-03-01
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This report is available for downloading from the Air Resources Board Internet website at
http://www.arb.ca.gov/msprog/smogcheck/smogcheck.htm

This 2010 Addendum finalizes the report, *Evaluation of the California Smog Check Program Using Random Roadside Data*, dated March 12, 2009, prepared by Sierra Research, Inc.

Report Background

On an on-going basis, the Bureau of Automotive Repair (BAR) conducts random roadside audits (smog tests) on vehicles. The results from these inspections are used to evaluate the performance of the Smog Check program in achieving the federal Clear Air Act requirements.

The Air Resources Board (ARB), in cooperation with BAR, hired Sierra Research, Inc. to conduct an independent research and analysis of the Smog Check Program using data collected from roadside inspections conducted in 2003-2006. The study compares roadside inspection results for 1976-95 (pre-OBDII) model year vehicles to the Smog Check inspection results reported by Smog Check stations for these same vehicles.

Key Findings

Key findings from the study include:

- Of the 1976-95 vehicles sampled, 19% of the vehicles initially passed a tailpipe inspection at a licensed Smog Check station, but failed a roadside audit inspection within a year.
- The data also showed that 49% of the vehicles that failed a roadside audit inspection had failed, and then subsequently passed, a tailpipe inspection at a Smog Check station within the past year.

Report Recommendations

The report recommends the following three actions:

- Develop a method of evaluating station performance to identify low performing stations for increased enforcement and to create incentives for high performing stations.
- Perform inspections of vehicles immediately following certification at Smog Check stations.
- Continue using roadside inspections to evaluate the Smog Check Program.

ARB/BAR Review

The report was subject to a comprehensive analysis by ARB and BAR staff for a better understanding of its contents and to confirm the reasonableness of its findings and recommendations. A solution plan was developed to address program changes necessary to achieve the air quality goals prescribed in the State Implementation Plan (SIP). The scope of the study did not require the contractor to evaluate the reasons for the roadside inspection failure rate. However, Sierra concluded in its report that improper testing or falsified Smog Check test results appear to be contributing factors.

BAR has already taken several steps to address the report findings and recommendations:

- Enhanced use of its new centralized database to determine individual station performance and improve the efficiency of enforcement operations against low-performing stations.
- Obtained court-issued Interim Suspension Orders (ISO) and Penal Code 23 orders to immediately suspend stations and technicians from continuing to perform Smog Check inspections where violations, such as "clean-piping," are identified.
- Teamed up with District Attorneys, who file criminal actions in conjunction with some of BAR's license revocation actions, to make the penalty for violating BAR laws and regulations even more significant.
- Expanded its roadside operations statewide and incorporated use of roadside test data to identify stations and technicians for potential enforcement actions.
- Initiated procurement for standardized software to operate upcoming hardware upgrades to the test equipment used by Smog Check stations.

Additional Recommended Program Changes

Statutory changes are also necessary to upgrade the Smog Check program to achieve additional emission reductions.

- Require vehicles that cause most of the pollution to have Smog Checks performed by stations that meet high performance standards.
- Adopt a more stringent fine structure to respond to stations and technicians that perform improper inspections.
- Permit the state to contract with the private sector to manage a franchise-like network of independently owned Smog Check stations.
- Mandate an annual evaluation of the performance of the Smog Check program using data collected from roadside inspections. Also, require the state to have an independent analysis done of the annual evaluation and report on the results.
- Authorize an alternative Smog Check test method and corresponding test equipment for newer vehicles equipped with updated on-board diagnostic systems (OBDII). OBD testing for newer technology vehicles was approved by the federal Environmental Protection Agency (USEPA) as an alternative to tailpipe testing, and is currently operated successfully in vehicle inspection programs nationwide.
- Establish legislative intent language to encourage Community Colleges and other training institutions to develop innovative programs that will respond to industry demand for automotive technicians.