2022 SMOG CHECK PERFORMANCE REPORT



MARK CARLOCK ENGINEERING AND RESEARCH BRANCH BAR ADVISORY GROUP MEETING JULY 21, 2022

ANNUAL REPORTING REQUIREMENTS

- Smog Check Performance Report (SCPR) as required by California Health and Safety Code Section 44024.5(b)
 - Historically presented analyses of Roadside Inspection Program failure rates
 - Independent review of 2021 SCPR by University of California Riverside Center for Environmental Research and Technology (CE-CERT) & Saint Malo Solutions, LLC
 - SCPRs can be viewed at https://www.bar.ca.gov/Resources
- United States Environmental Protection Agency (US EPA) Report Inspection and Maintenance (I/M) Rule Section 51.366
 - Analyses of Smog Check failure rates, number of retests, vehicles not certified after initial failure, etc.
 - California Air Resources Board (CARB) submits to US EPA by July 31, 2022

A NOTE ABOUT THE 2022 SCPR

- Historically, BAR has presented separate analyses for pre-2000 TSI and ASM tested vehicles and model year 2000+ OIS tested vehicles.
- Because of the diminishing population of pre-2000 model year vehicles in the fleet and the smaller than usual number of roadside tests conducted in 2000 and 2021, analyses were focused on OIS tested vehicles.
- In the 2022 SCPR the potential additional benefits of Smog Check were estimated using CARB's EMFAC emissions estimation model along with data collected at roadside.

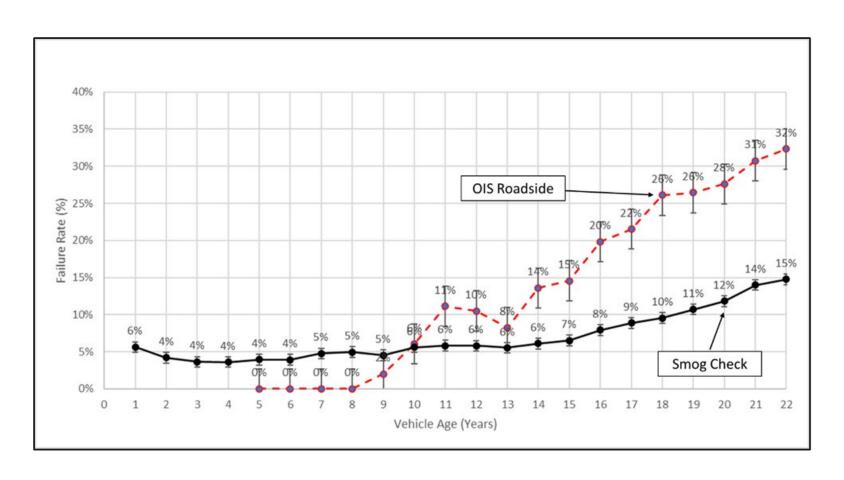
2022 SCPR FINDINGS

- 1976-2021 MY vehicles included in the CY 20-21 roadside sample failed at a rate of about 16% compared to 17% observed in the CY 19-20 roadside sample.
- Vehicles certified by "high performing" Smog Check stations failed at a lower rate at roadside compared to vehicles certified by stations with lower FPR scores.
- Incremental improvements to the Smog Check Program were evidenced through declining differences between roadside and Smog Check failure rates, and an increase in enforcement actions against stations and technicians engaging in fraudulent practices.

2022 SCPR FINDINGS (CONTINUED)

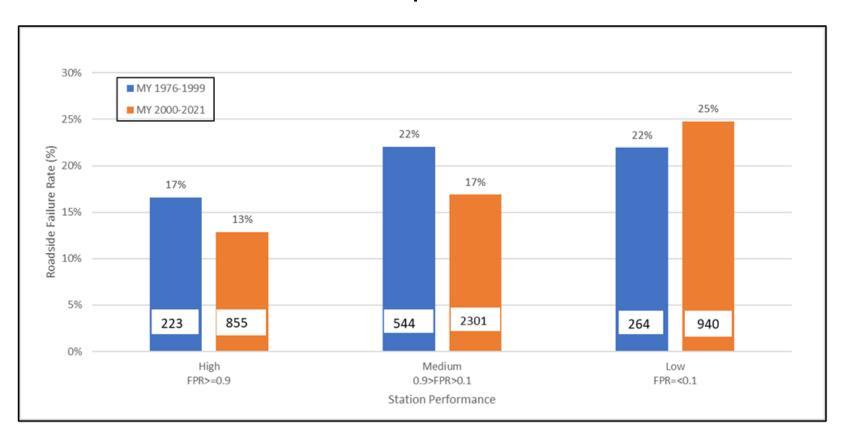
 BAR and CARB estimate that in CY 2021, Smog Check could have reduced an additional 53 tons-per-day of Reactive Organic Gases (ROG) + Oxides of Nitrogen (NOx) if all stations operated as effectively as high-performing stations.

Smog Check and Roadside Fail Rates for OIS Tested Vehicles



STATION PERFORMANCE REMAINS IMPORTANT

 Station performance, as measured with the "Follow-up Pass Rate," (FPR) continues to be a very strong indicator of in-use vehicle emissions performance.

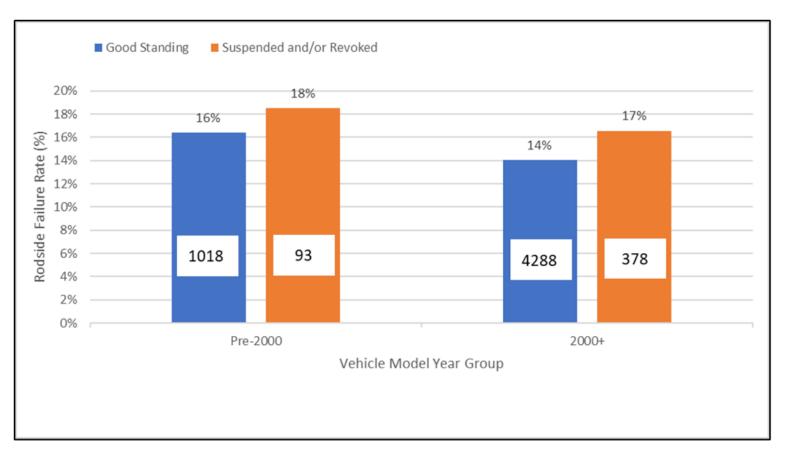


BAR ENFORCEMENT ACTIVITIES

- From 2016 to 2021, BAR filed 1,182 "data-only" cases with the Attorney General's Office, resulting in 1,036 license revocations and 275 suspensions or probations.
- During 2021, 2,077 vehicles had their certificates blocked because of potential fraud and were sent to the Referee network for inspection; less than half of those had received a Smog Check certificate as of June of 2022
- BAR continues to take administrative disciplinary action against Smog Check stations charged with "clean piping", "clean gassing", "clean plugging" and "clean tanking."
- BAR is working with DMV to curtail registration-based fraud.

ENFORCEMENT ACTIONS ARE OBSERVED IN EMISSIONS OF THE IN-USE VEHICLE FLEET

 Vehicles certified by stations with subsequently revoked licenses failed at consistently higher rates at roadside compared to those certified by stations in good standing.



US EPA REPORT

- This report is a compilation of statistics on the Smog Check Program required to be submitted to US EPA every year.
- The report is submitted by CARB and is used by US EPA to examine regional differences in inspection and maintenance programs.
- Every other year the report also includes a summary of changes in program design, procedures, regulations, etc.

QUESTIONS AND COMMENTS

Submit questions and/or comments to:

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