

Revised State Implementation Plan  
For California's Motor Vehicle  
**INSPECTION & MAINTENANCE**  
**PROGRAM**

Release Date: April 7, 2009

The report has been reviewed and approved for publication by the staff of the California Department of Consumer Affairs, Bureau of Automotive Repair and the California Air Resources Board. Approval does not signify that the contents necessarily reflect the views and policies of California Department of Consumer Affairs, Bureau of Automotive Repair and the California Air Resources Board.



California Department of Consumer Affairs  
Bureau of Automotive Repair

California Air Resources Board



On January 22, 1996, the Air Resources Board (ARB or Board) submitted to the U.S EPA a SIP revision for the basic and enhanced I/M program. The proposed SIP revision covers changes made to the program from 1996 up through 2008. Specifically, the revision includes a description of the geographical coverage of the program, a detailed discussion of each required program element, the legal authority for the program, evidence of adequate findings and resources, and the text of all implementing regulations.

Title 40 of the Code of Federal Regulations, Part 51, Subpart S, section 51.353 requires a demonstration that the state's enhanced I/M program meets or exceeds the performance standard specified in section 51.351. This SIP revision includes demonstrations that the enhanced program meets the applicable performance standard in each region where the enhanced program is required.

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IMPLEMENTATION PLAN FOR INSPECTION / MAINTENANCE  
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**§51.350      APPLICABILITY**

**SIP Requirements**

1. *Include the legal authority or rules necessary to establish program boundaries.*
2. *Describe the applicable areas in detail.*

**1. Legal Authority**

*Include the legal authority or rules necessary to establish program boundaries.*

California's Health and Safety Code (HSC) Chapter 5, §44000, et seq., establishes California's Inspection and Maintenance Program, referred to as the Smog Check program (program). Refer to Attachment 1, Smog Check Program Laws and Regulations as of 2008, for actual code sections.

**2. Description of Program Areas**

*Describe the applicable areas in detail.*

Below is a written description of the program areas subject to the Smog Check program. Attachment 2 is a map of the program areas. Also refer to Attachment 3, List of Zip Codes by Program Area.

**Enhanced Program:** The enhanced program operates in urbanized areas of the state, any part of which is classified by the United States Environmental Protection Agency (USEPA) as a serious, severe, or extreme non-attainment area for ozone or a moderate or serious non-attainment area for carbon monoxide with a design value greater than 12.7 parts per million (ppm) pursuant to HSC §44003(a)(1). In addition, effective October 1, 2003, pursuant to HSC §44003.5, an enhanced program was established in the urbanized portions of the San Francisco Bay Area Basin.

**Partially Enhanced:** Areas opted into the enhanced program by the local Air Pollution Control District/Air Quality Management District pursuant to HSC §44003(c)(2). Although similar to the enhanced areas, no vehicles in a partially enhanced area are directed to have their biennial Smog Checks performed at Test-Only stations. These areas are described as "Enhanced Area, No Directed Vehicles" in Attachment 3.

**Basic Program:** As shown on the map, the basic program operates in other areas of the state as of March 30, 1994 pursuant to HSC §44003(b).

**Change-of-Ownership Program:** HSC §44003(b) and Vehicle Code (VC) §4000.1 and §4000.2 require Smog Check inspection as a condition of vehicle transfer (change-of-ownership) and as a condition of initial registration for vehicles brought into the state.

**Exempt Program:** The motor vehicle inspection program does not apply to any vehicle permanently located on an island in the Pacific Ocean located 20 miles or more from the mainland coast pursuant to HSC §44004.

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**§51.351 ENHANCED I/M PERFORMANCE STANDARD**

**SIP Requirements**

*Include a modeling demonstration that the I/M program meets the performance standard for the pollutant(s) which caused it to be subject to the program.*

Below are the results of modeling runs that demonstrate the equivalency of California's enhanced Smog Check program to the performance standard. The modeling requirements, as called for in the Federal register, require that such modeling demonstrations be performed using the most current version of the EPA's mobile source emissions model, or an alternative. For this demonstration, ARB staff has used EPA's MOBILE6.2 emissions model.

The performance demonstration consists of determining the federal performance benchmark, by estimating the percent reduction in emissions for a federal High Enhanced I/M Performance Standard program in the base year of 2002, and comparing to the percent reduction in emissions for the California enhanced I/M program in the year before the expected attainment date. This performance demonstration is done for each nonattainment region that has the enhanced I/M program. Some regions could be modeled in their entirety, but some regions had to be broken down into smaller county and air basin combinations in order to do the modeling.

The following table lists the nonattainment regions with enhanced I/M and the expected attainment dates.

<b>8-hr Ozone Nonattainment Area</b>	<b>Expected Attainment Date</b>	<b>Year before Expected Att. Date – for Modeling</b>
South Coast	2024	2023
San Joaquin Valley	2024	2023
Sacramento Region	2019	2018
Coachella Valley	2019	2018
Ventura	2013	2012
Western Mojave Desert	2021	2020
San Diego	2009	2008
San Francisco Bay Area	2007	2006

**MOBILE6.2 Model Inputs**

The modeling runs used region-specific vehicle registration information, including distributions by vehicle class and age, from the EMFAC2007 v2.3 (Nov06) emissions model. The default diesel registration fractions in MOBILE6.2 were used for all regions except the San Francisco Bay Area, where San Francisco region-specific diesel fractions from EMFAC2007 were used. Other region-specific inputs from EMFAC2007 were hourly temperature and humidity profiles and Reid Vapor Pressure for the summer season.

The following table was used to convert vehicle class-specific inputs from EMFAC2007 to MOBILE6.2. The assignment of EMFAC2007 vehicle classifications to the MOBILE6.2 vehicle classes was facilitated using the MOBILE6.2 User's Guide (<http://www.epa.gov/OMS/models/mobile6/420r03010.pdf>, p. 242).

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MOBILE Vehicle Class	EMFAC Vehicle Class
LDV	Passenger Cars
LDT1	T1 (0-3750 lbs.)
LDT2	T2 (3751-5750 lbs.)
LDT3	T3 (5751-8500 lbs.)
LDT4	T3 (5751-8500 lbs.)
HDV2B	T4 (8501-10,000 lbs.)
HDV3	T5 (10,001-14,000 lbs.)
HDV4	T6 (14,001-33,000 lbs.)
HDV5	T6 (14,001-33,000 lbs.)
HDV6	T6 (14,001-33,000 lbs.)
HDV7	T6 (14,001-33,000 lbs.)
HDV8A	T7 (>33,000 lbs.)
HDV8B	T7 (>33,000 lbs.)
HDBS	School Buses
HDBT	Urban Buses
MC	Motorcycles

Other inputs required for MOBILE6.2 were obtained from statewide Smog Check program statistics:

- ✓ The anti-tampering compliance rate refers to the portion of vehicles passing visual inspections.
- ✓ I/M stringency is the failure rate for pre-1981 vehicles. Statewide pre-1981 model year failure rates were estimated using Smog Check data for light- and heavy-duty vehicles.
- ✓ I/M compliance is the percentage of the covered fleet either complying or receiving a waiver. It was estimated by dividing total certifications issued (number of vehicles receive a certificate of passing or a waiver) by the total number of vehicles tested.
- ✓ Waiver rate was estimated by dividing the number of waivers issued by the total number of vehicles tested. The same rate was used both for pre-1981 and 1981 and newer vehicles, since this information was not distinguished by model year.

Input data for the High Enhanced I/M Performance Standard baseline run were provided by the U.S. EPA Office of Transportation and Air Quality.

## Results

As shown in the following tables, the California enhanced I/M program in each of the regions either meets or exceeds the federal performance standard. The input and output files, and vehicle fleet distribution for each run are included in Attachment 4, Enhanced I/M Performance Modeling Files.

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South Coast Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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South Coast Air Basin

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.413	N/A	1.639	13.8%
NOx	2.505	N/A	2.643	5.2%
CO	15.066	N/A	18.132	16.9%
Calendar Year 2023 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.422	N/A	0.558	24.4%
NOx	0.440	N/A	0.608	27.6%
CO	5.322	N/A	7.431	28.4%

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San Joaquin Valley Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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San Joaquin Valley Air Basin

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.744	N/A	2.043	14.6%
NOx	2.667	N/A	2.826	5.6%
CO	17.937	N/A	21.955	18.3%
Calendar Year 2023 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.411	N/A	0.544	24.4%
NOx	0.461	N/A	0.628	26.6%
CO	4.951	N/A	6.929	28.5%

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Sacramento Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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El Dorado County (Mountain Counties Air Basin)				
Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.663	N/A	1.947	14.6%
NOx	2.578	N/A	2.728	5.5%
CO	17.211	N/A	21.130	18.5%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.583	N/A	0.708	17.7%
NOx	0.695	N/A	0.852	18.4%
CO	5.771	N/A	7.870	26.7%

Placer County (Mountain Counties Air Basin)				
Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.872	N/A	2.220	15.7%
NOx	2.804	N/A	2.970	5.6%
CO	19.079	N/A	23.824	19.9%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.647	N/A	0.777	16.7%
NOx	0.705	N/A	0.864	18.4%
CO	6.673	N/A	8.869	24.8%

Placer County (Sacramento Valley Air Basin)				
Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.704	N/A	1.947	12.5%
NOx	2.573	N/A	2.728	5.7%
CO	17.614	N/A	21.130	16.6%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.488	N/A	0.603	19.1%
NOx	0.562	N/A	0.712	21.1%
CO	5.250	N/A	7.160	26.7%

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Sacramento Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M (continued)				
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Sacramento County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.528	N/A	1.775	13.9%
NOx	2.531	N/A	2.681	5.6%
CO	16.075	N/A	19.407	17.2%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.622	N/A	0.752	17.3%
NOx	0.680	N/A	0.841	19.1%
CO	5.789	N/A	7.902	26.7%

Solano County (Sacramento Valley Air Basin)

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.454	N/A	1.694	14.2%
NOx	2.518	N/A	2.656	5.2%
CO	15.706	N/A	19.027	17.5%

Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.526	N/A	0.636	17.3%
NOx	0.611	N/A	0.750	18.5%
CO	5.472	N/A	7.317	25.2%

Yolo County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.553	N/A	1.806	14.0%
NOx	2.589	N/A	2.739	5.5%
CO	16.336	N/A	19.716	17.1%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.589	N/A	0.711	17.2%
NOx	0.647	N/A	0.798	18.9%
CO	5.654	N/A	7.653	26.1%

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Coachella Valley Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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Riverside County (Salton Sea Air Basin)

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.429	N/A	1.649	13.3%
NOx	2.445	N/A	2.578	5.2%
CO	15.418	N/A	18.343	15.9%
Calendar Year 2018 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.519	N/A	0.634	18.1%
NOx	0.598	N/A	0.749	20.2%
CO	5.180	N/A	7.045	26.5%

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Ventura County Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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Ventura County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.386	N/A	1.610	13.9%
NOx	2.543	N/A	2.686	5.3%
CO	14.871	N/A	17.910	17.0%

Calendar Year 2012 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.730	N/A	0.853	14.4%
NOx	1.159	N/A	1.303	11.1%
CO	7.089	N/A	9.332	24.0%

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Western Mojave Desert Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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San Bernardino County (Mojave Desert Air Basin)				
Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.757	N/A	2.068	15.0%
NOx	2.656	N/A	2.808	5.4%
CO	18.016	N/A	22.237	19.0%
Calendar Year 2020 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.494	N/A	0.620	20.3%
NOx	0.513	N/A	0.670	23.4%
CO	5.006	N/A	6.898	27.4%

Los Angeles County (Mojave Desert Air Basin)				
Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.685	N/A	1.966	14.3%
NOx	2.623	N/A	2.779	5.6%
CO	17.463	N/A	21.241	17.8%
Calendar Year 2020 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.486	N/A	0.606	19.8%
NOx	0.509	N/A	0.658	22.6%
CO	4.952	N/A	6.766	26.8%

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San Diego County Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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San Diego County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.374	N/A	1.591	13.6%
NOx	2.513	N/A	2.658	5.5%
CO	14.789	N/A	17.717	16.5%
Calendar Year 2008 Emission Factors (grams/mile)				
	California Enhanced	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.852	0.832	0.973	14.5%
NOx	1.616	N/A	1.740	7.1%
CO	8.254	N/A	10.348	20.2%

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San Francisco Federal Non Attainment Area Enhanced Smog Check Program Compared to No I/M
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San Francisco Air Basin

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Enhanced	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.371	N/A	1.584	13.4%
NOx	2.510	N/A	2.650	5.3%
CO	14.627	N/A	17.455	16.2%
Calendar Year 2006 Emission Factors (grams/mile)				
	California Enhanced*	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.933	0.913	1.056	13.5%
NOx	1.792	N/A	1.952	8.2%
CO	8.717	N/A	10.727	18.7%

\* With San Francisco Air Basin Diesel Fractions from EMFAC2007 v2.3 Applied to MOBILE6.2 runs

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**§51.352 BASIC I/M PERFORMANCE STANDARD**

**SIP Requirements**

*Include a modeling demonstration that the I/M program meets the performance standard for the pollutant(s) which caused it to be subject to the program.*

Below are the results of modeling runs that demonstrate the equivalency of California's basic Smog Check program to the performance standard. The modeling requirements, as called for in the Federal register, require that such modeling demonstrations be performed using the most current version of the EPA's mobile source emissions model, or an alternative. For this demonstration, ARB staff has used EPA's MOBILE6.2 emissions model.

The performance demonstration consists of determining the federal performance benchmark, by estimating the percent reduction in emissions for a federal Basic I/M Performance Standard program in the base year of 2002, and comparing to the percent reduction in emissions for the California basic I/M program in the year before the expected attainment date. This performance demonstration is done for each nonattainment region that has the basic I/M program. Some regions could be modeled in their entirety, but some regions had to be broken down into smaller county and air basin combinations in order to do the modeling.

The following table lists the nonattainment regions with basic I/M and the expected attainment dates.

<b>8-hr Ozone Nonattainment Area</b>	<b>Expected Attainment Date</b>	<b>Year before Expected Att. Date – for Modeling</b>
San Joaquin Valley	2024	2023
Eastern Kern	2014	2013
Sutter Buttes	2014	2013
Western Nevada Co.	2014	2013
Western Mojave Desert	2021	2020
San Diego	2009	2008
Chico (Butte Co.)	2009	2008

**MOBILE6.2 Model Inputs**

The modeling runs used region-specific vehicle registration information, including distributions by vehicle class and age, from the EMFAC2007 v2.3 (Nov06) emissions model. The default diesel registration fractions in MOBILE6.2 were used for all regions. Other region-specific inputs from EMFAC2007 were hourly temperature and humidity profiles and Reid Vapor Pressure for the summer season.

The following table was used to convert vehicle class-specific inputs from EMFAC2007 to MOBILE6.2. The assignment of EMFAC2007 vehicle classifications to the MOBILE6.2 vehicle classes was facilitated using the MOBILE6.2 User's Guide (<http://www.epa.gov/OMS/models/mobile6/420r03010.pdf>, p. 242).

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MOBILE Vehicle Class	EMFAC Vehicle Class
LDV	Passenger Cars
LDT1	T1 (0-3750 lbs.)
LDT2	T2 (3751-5750 lbs.)
LDT3	T3 (5751-8500 lbs.)
LDT4	T3 (5751-8500 lbs.)
HDV2B	T4 (8501-10,000 lbs.)
HDV3	T5 (10,001-14,000 lbs.)
HDV4	T6 (14,001-33,000 lbs.)
HDV5	T6 (14,001-33,000 lbs.)
HDV6	T6 (14,001-33,000 lbs.)
HDV7	T6 (14,001-33,000 lbs.)
HDV8A	T7 (>33,000 lbs.)
HDV8B	T7 (>33,000 lbs.)
HDBS	School Buses
HDBT	Urban Buses
MC	Motorcycles

Other inputs required for MOBILE6.2 were obtained from statewide Smog Check program statistics:

- ✓ The anti-tampering compliance rate refers to the portion of vehicles passing visual inspections.
- ✓ I/M stringency is the failure rate for pre-1981 vehicles. Statewide pre-1981 model year failure rates were estimated using Smog Check data for light- and heavy-duty vehicles.
- ✓ I/M compliance is the percentage of the covered fleet either complying or receiving a waiver. It was estimated by dividing total certifications issued (number of vehicles receive a certificate of passing or a waiver) by the total number of vehicles tested.
- ✓ Waiver rate was estimated by dividing the number of waivers issued by the total number of vehicles tested. The same rate was used both for pre-1981 and 1981 and newer vehicles, since this information was not distinguished by model year.

Input data for the Basic I/M Performance Standard baseline run were provided by the U.S. EPA Office of Transportation and Air Quality.

## Results

As shown in the following tables, the California basic I/M program in each of the regions either meets or exceeds the federal performance standard. The input and output files for each run are included in Attachment 5, Basic I/M Performance Modeling Files.

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San Joaquin Valley Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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San Joaquin Valley Air Basin

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.945	N/A	2.043	4.8%
NOx	2.817	N/A	2.826	0.3%
CO	20.666	N/A	21.955	5.9%

Calendar Year 2023 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.474	0.454	0.544	16.5%
NOx	0.628	0.608	0.628	3.2%
CO	5.656	5.636	6.929	18.7%

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Eastern Kern Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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Kern County (Mojave Desert Air Basin)

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	2.020	N/A	2.135	5.4%
NOx	2.846	N/A	2.854	0.3%
CO	21.263	N/A	22.751	6.5%
Calendar Year 2013 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.801	0.781	0.867	9.9%
NOx	1.161	1.141	1.169	2.4%
CO	6.932	6.912	8.221	15.9%

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Sutter Buttes (Sutter County) Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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Sutter County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	2.011	N/A	2.114	4.9%
NOx	2.827	N/A	2.836	0.3%
CO	21.244	N/A	22.586	5.9%

Calendar Year 2013 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.913	N/A	0.991	7.9%
NOx	1.265	N/A	1.274	0.7%
CO	7.755	N/A	9.234	16.0%

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Western Nevada County Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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Nevada County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.981	N/A	2.109	6.1%
NOx	2.925	N/A	2.934	0.3%
CO	20.937	N/A	22.521	7.0%

Calendar Year 2013 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.875	N/A	0.952	8.1%
NOx	1.262	N/A	1.270	0.6%
CO	7.782	N/A	9.280	16.1%

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Western Mojave Desert Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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San Bernardino County (Mojave Desert Air Basin)

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	1.958	N/A	2.068	5.3%
NOx	2.800	N/A	2.808	0.3%
CO	20.79	N/A	22.237	6.5%
Calendar Year 2020 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	Percent Reduction
VOC	0.541	0.521	0.606	14.0%
NOx	0.658	0.638	0.658	3.0%
CO	5.597	5.577	6.766	17.6%

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San Diego County Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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San Diego County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.514	N/A	1.591	4.8%
NOx	2.650	N/A	2.658	0.3%
CO	16.739	N/A	17.717	5.5%
Calendar Year 2008 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	0.896	N/A	0.973	7.9%
NOx	1.723	N/A	1.740	1.0%
CO	8.906	N/A	10.348	13.9%

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Chico (Butte County) Federal Non Attainment Area Basic Smog Check Program Compared to No I/M
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Butte County

Calendar Year 2002 Emission Factors (grams/mile)				
	Federal Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	2.403	N/A	2.546	5.6%
NOx	3.047	N/A	3.057	0.3%
CO	24.709	N/A	26.529	6.9%
Calendar Year 2008 Emission Factors (grams/mile)				
	California Basic	Less 0.02 Buffer	No I/M	% Reduction
VOC	1.316	N/A	1.422	7.5%
NOx	1.940	N/A	1.967	1.4%
CO	10.852	N/A	12.693	14.5%

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**§51.353 NETWORK TYPE AND PROGRAM EVALUATION**

**SIP Requirements**

- 1. Include a description of the network to be employed, the required legal authority, and in the case of areas making claims under paragraph (b)[reserved] of this section, the required demonstration.*
- 2. Include a description of the evaluation schedule and protocol, the sampling methodology, the data collection and analysis system, the resources and personnel for evaluation, and related details of the evaluation program, and the legal authority enabling the evaluation program.*

**1. Program Description**

*Include a description of the network to be employed, the required legal authority, and in the case of areas making claims under paragraph (b) [reserved] of this section, the required demonstration.*

The overall structure of California's current Smog Check program was established by legislation enacted in 1994 in response to the requirements of the federal Clean Air Act Amendments of 1996 and USEPA regulations. These amendments established the enhanced Smog Check program in the areas of the state with the greatest air pollution problems. The enhanced program is implemented in each urbanized area of the state, any part of which is classified by USEPA as a serious, severe, or extreme nonattainment area for ozone or a moderate or serious nonattainment area for carbon monoxide with a design value greater than 12.7 parts per million. A basic vehicle inspection and maintenance program has continued in all other areas of the state where a program was in existence on March 30, 1994. Refer to Attachment 2, Map of Program Areas which is provided in response to CFR §51.350.

Smog Check inspections are required biennially (every other year) in both enhanced and basic program areas as a condition of vehicle registration. Inspections are also required statewide as a condition of vehicle transfer (change-of-ownership) and as a condition of initial registration for vehicles brought into the state.

Smog Check inspections are performed at privately owned state-licensed inspection stations by state-licensed technicians. There are two primary differences in the inspection procedures between the enhanced and basic programs. These are the type of test performed on vehicles and the direction of a percentage of vehicles to test-only stations. In enhanced program areas, stations inspect vehicles using a BAR-97 Emission Inspection System (EIS) that includes a dynamometer that performs a loaded-mode test. This test procedure, also known as Acceleration Simulation Mode (ASM), measures hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx). In the basic areas, the two-speed idle test is performed using the same EIS. Further, potentially high polluting vehicles are selected for inspection at test-only stations in the enhanced program areas.

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**2. Program Evaluation**

*Include a description of the evaluation schedule and protocol, the sampling methodology, the data collection and analysis system, the resources and personnel for evaluation, and related details of the evaluation program, and the legal authority enabling the evaluation program.*

California has performed and submitted to USEPA two evaluations of its Smog Check program pursuant to this provision, the first in 2000 and the second in 2005. Both of these evaluations used two methods to quantify the emission reduction benefits of the program: (1) an analysis of emissions tests from roadside pullover programs conducted by the Department of Consumer Affairs' Bureau of Automotive Repair (DCA/BAR); and (2) an analysis of the results from the Air Resources Board's (ARB) most current motor vehicle emissions model. Both evaluations found relatively good agreement between the two different approaches used to estimate the enhanced benefits of the Smog Check program relative to the basic program.

As discussed in CFR §51.371, on-road testing is still being conducted in California for the purpose of collecting data for future evaluations.

**Legal Authority for Enhanced and Basic Program**

HSC §44003	Establishment and continuation of programs; program assessment; elements
HSC §44005	Implementation of program enhancements; inspections under program
VC §4000.1	Certificate of compliance or noncompliance; statements in lieu of certificate; exemptions; testing for collector motor vehicles
VC §4000.2	Out-of-state motor vehicles; requirements
VC §4000.3	Certificate of compliance; periodic issuance

**Legal Authority for Evaluation Program**

HSC §44014.7	Enhanced program areas; certification of vehicles at test-only facilities; requirements
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**§51.354 ADEQUATE TOOLS AND RESOURCES**

**SIP Requirements**

- 1. Include a description of the resources that will be used for program operation, and discuss how the performance standard will be met.*
- 2. Include a detailed budget plan which describes the source of funds for personnel, program administration, program enforcement, purchase of necessary equipment (such as vehicles for undercover audits), and any other requirements discussed throughout, for the period prior to the next biennial self evaluation required in §51.366 of this subpart.*
- 3. Include a description of personnel resources. The plan shall include the number of personnel dedicated to overt and covert auditing, data analysis, program administration, enforcement and other necessary functions and the training attendant to each function.*

**1. Program Resources**

*Include a description of the resources that will be used for program operation, and discuss how the performance standard will be met.*

**Vehicle Inspection and Repair Fund (VIRF)**

Funds to operate California's Smog Check program are generated by charging motorists for certificates of compliance pursuant to HSC §44060. Certificates are issued to vehicles that pass their inspection as well as to vehicles that receive waivers, and these certificates are required as a condition of renewal of vehicle registration. The certificate fee, currently \$8.25, is collected by the DCA/BAR from Smog Check stations who in turn charge motorists this fee which is then deposited into the Vehicle Inspection and Repair Fund (VIRF). In addition, a \$12.00 smog abatement fee is collected from owners of vehicles excepted from the Smog Check program, of which \$2.00 is allocated to the VIRF. The VIRF is a special fund that is not a part of California's General Fund. The use of this fund is statutorily limited to funding DCA/BAR and any other state agency directly involved in the implementation of California's Smog Check program.

**High Polluter Repair or Removal Account (HPRRA)**

Funds to operate the Consumer Assistance Program (CAP), described in CFR §51.360, are generated by the allocation of \$4.00 of the \$12.00 smog abatement fee assessed in lieu of the biennial Smog Check test on vehicles initially registered in California that are six model years and newer. The smog abatement fee is collected as a condition of renewal of vehicle registration and are deposited into the High Polluter Repair or Removal Account (HPRRA) pursuant to HSC §44091.

**2. Budget Plan**

*Include a detailed budget plan which describes the source of funds for personnel, program administration, program enforcement, purchase of necessary equipment (such as vehicles for undercover audits), and any other requirements discussed throughout, for the period prior to the next biennial self evaluation required in §51.366 of this subpart.*

Attachment 6 is the Fund Condition statement for the VIRF and the Fund Condition statement for the HPRRA as of April 2, 2009.

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**3. Personnel Description**

*Include a description of personnel resources. The plan shall include the number of personnel dedicated to overt and covert auditing, data analysis, program administration, enforcement and other necessary functions and the training attendant to each function.*

BAR has 631.15 authorized positions dedicated to a variety of functions to support the administration of the Smog Check program.

The Smog Check Program consists of three Divisions which includes the (1) Smog Check Operations, Engineering & Research Division (SCOE&RD), (2) Consumer Assistance & Administration Division (CA&AD) and (3) Field Operations & Enforcement Division (FO&ED).

Within the SCOE&RD, there are three branches. The Smog Check Operations Branch has twenty four positions as of December 2008. This includes the ET Administration Unit and the Information Technology Unit. The ET Administration Unit operates the BAR Service Desk, responds to requests for information and reports, provides ET system support, and provides project support as directed by management. The Information Technology Unit provides application support for the Next Generation Electronic Transmission (NGET) and Consumer Assistance Program (CAP) systems, network services for the Smog Check Divisions.

The Engineering and Research Branch has twenty one positions as of December 2008. This includes the Equipment & Certification Unit and Data Analysis/Program Evaluation Unit. The Engineering and Research Branch conducts various research projects to continually improve the effectiveness of the Smog Check program. Although some projects prove more valuable than others, most projects contribute to improving the effectiveness of the Smog Check inspection process.

The Technical Services Branch has thirty four positions as of December 2008. This branch is responsible for collecting data through the Roadside Audits program, maintaining a valid examination for smog check technicians, administering the Referee program.

Within the CA&AD, there are two branches. The Consumer Assistance Program (CAP) has fifty nine positions as of December 2008. The CAP provides financial assistance for qualified consumers whose vehicles fail their biennial (every-other-year) smog check. The statutory authority for CAP is found in the Health and Safety Code and is implemented through regulations adopted by the Bureau of Automotive Repair (BAR). The Administration Branch has fifty seven positions. This branch is responsible for providing administrative services, such as personnel, purchasing, contracts and facilities. The unit also is responsible for ensuring licenses and registrations to Smog Check technicians, Smog Check stations and Automotive repair dealers.

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The Field Operations & Enforcement Branch currently has three hundred forty six and three quarters positions of which 45% support Smog Check staff. This includes twelve Field Offices located throughout California, that investigates and ensures that shops comply with Smog Check statutes. Vehicle Documentation Laboratories currently has seventy four positions. This includes six laboratories throughout California, that provide documented vehicles used in under cover operations statewide.

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**§51.355 TEST FREQUENCY AND CONVENIENCE**

**SIP Requirements**

- 1. Describe the test schedule in detail, including the test year selection scheme if testing is other than annual.*
- 2. Demonstrate that the network of stations providing test services is sufficient to insure short waiting time to get a test and short driving distances.*
- 3. Include the legal authority necessary to implement and enforce the test frequency requirement and explain how the test frequency will be integrated with the enforcement process.*

**1. Test Schedule**

*Describe the test schedule in detail, including the test year selection scheme if testing is other than annual.*

Refer to Attachment 7, Vehicle Model Years Subject to Smog Check, which shows vehicle model years subject to inspection. Inspections are required biennially on 1976 model-year and newer vehicles in areas described in CFR §51.350. However, the biennial Smog Check inspection requirement does not apply to vehicle models 6 years and newer as shown in Attachment 7.

California's Department of Motor Vehicles (DMV) notifies motorists of the smog test requirement on the registration Renewal Notice. Vehicles are identified based on Zip Code of registration address, vehicle type, model-year and fuel type.

The DMV registration renewal notification also advises vehicle owners when their vehicle has been selected for test-only inspection. Electronic Transmission (ET) and the Emission Inspection System (EIS) software prohibits inspections on vehicles if initial tests are conducted at Smog Check stations other than Test-Only.

A Smog Check inspection is also required upon change of ownership and initial registration in California. Motorists are advised, at the time they contact the DMV to process a change-of-ownership or initial registration that they must obtain a certificate of compliance before the vehicle registration can be renewed. The change-of-ownership requirement applies statewide to vehicles over four model-years old, initial registration requirement applies statewide, to 1976 model-year and newer vehicles.

**2. Network of Stations**

*Demonstrate that the network of stations providing test services is sufficient to insure short waiting time to get a test and short driving distances.*

BAR licenses two types of Smog Check facilities: Test-and-Repair stations and Test-Only stations. Within the Test-and-Repair network are BAR certified Gold Shield Stations that meet certain performance standards established in regulation that are authorized to inspect Test-Only directed vehicles and offer subsidized repairs under BAR's Consumer Assistance Program. BAR also contracts for Referee functions to be performed by an independent third party.

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**Test-And-Repair Stations:**

Test-and-Repair stations are licensed to provide Smog Check tests and repairs to most vehicles. California's decentralized network of approximately 4,400 privately owned Test and Repair Smog Check stations statewide accessible to motorists.

**Gold Shield Stations:**

Approximately 590 certified Gold Shield stations are licensed Test-and-Repair stations that have received additional certification by BAR. In addition to the services provided by regular Test-and-Repair stations, Gold Shield stations can certify vehicles identified as gross polluters. They can also perform the "after-repairs" certification of vehicles directed to Test-Only stations for an initial inspection, as long as the Gold Shield station has performed the repairs to the directed vehicle. Gold Shield stations also contract with BAR to perform state subsidized emissions-related repairs on vehicles participating in the Consumer Assistance Program. Gold Shield stations located in the basic program areas of the state can certify enhanced area vehicles for new and used car dealers who purchase them and offer them for sale in the basic and change-of-ownership program areas.

**Test-Only Stations:**

There are approximately 2,000 licensed test only stations to accommodate the vehicles subject to test-only inspection. A portion of the vehicles subject to biennial Smog Check inspections are directed to test-only stations for initial tests. Regulations adopted August 1, 2007 will allow Gold Shield Stations the ability to perform initial tests on directed vehicles. Directed vehicles are selected based on a profile that indicates they are more likely to be high-emitting vehicles, based on model year, vehicle type, and repair history.

**Referee Centers:**

Referee Centers are state-contracted facilities that handle special cases for consumers who own vehicles that require certain unconventional inspection services. They perform a number of functions for consumers, including the certification of vehicles issued a Limited Parts Exemption, gray market vehicles, specially constructed vehicles such as kit cars and vehicles with engine changes. They also mediate certain disputes between Smog Check stations and consumers, issue repair cost waivers, as well as help to resolve other Smog Check issues.

**3. Legal Authority for Test Frequency**

*Include the legal authority necessary to implement and enforce the test frequency requirement and explain how the test frequency will be integrated with the enforcement process.*

HSC §44011	Certificate of compliance or noncompliance; biennial requirement; exceptions; inspections; exemption of collector motor vehicle
HSC §44014.5	Enhanced program components; test-only facilities activities and standards; number of facilities; testing of gross polluters
VC §4000.1	Certificate of compliance or noncompliance; statements in lieu of certificate; exemptions; testing for collector motor vehicle

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VC §4000.2 Out-of-state motor vehicles; requirements

VC §4000.3 Certificate of compliance; periodic issuance

Refer to **Section 51.364 Enforcement Against Contractors, Stations and Inspectors**, for information regarding the enforcement of test frequency and convenience requirements.

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**§51.356 VEHICLE COVERAGE**

**SIP Requirements**

- 1. Include a detailed description of the number and types of vehicles to be covered by the program and a plan for how those vehicles are to be identified, including vehicles that are routinely operated in the area but may not be registered in the area.*
- 2. Include a description of any special exemptions which will be granted by the program and estimate of the percentage and number of subject vehicles which will be impacted. Such exemptions shall be accounted for in the emission reduction analysis.*
- 3. Include the legal authority or rule necessary to implement and enforce the vehicle coverage requirement.*

**1. Vehicles Covered by the Smog Check Program**

*Include a detailed description of the number and types of vehicles to be covered by the program, and a plan for how those vehicles are to be identified, including vehicles that are routinely operated in the area but may not be registered in the area.*

As of December 30, 2008, BAR estimates that 24,721,600 vehicles are subject to the biennial Smog Check. Of these, 20,616,100 are subject to the enhanced program, 1,207,300 are subject to the partial enhanced program 2,128,900 are subject to the basic program. All vehicles (except those noted in the list of exemptions), including an estimated 769,300 vehicles that reside in non-biennial areas, are subject to testing in the event of a change of ownership. Based on historical data approximately 22% (about 5.5 million) of these vehicles will change ownership and may be subject to testing within a biennial cycle.

Attachment 8, Estimate of California Fleet Subject to Smog Check Program as of December 31, 2008, is a breakdown of vehicles by program area and model year.

**2. Vehicles Exempted from the Smog Check Program**

*Include a description of any special exemptions which will be granted by the program and estimate of the percentage and number of subject vehicles which will be impacted. Such exemptions shall be accounted for in the emission reduction analysis.*

At this time, vehicles exempt from Smog Check requirements are diesel vehicles, electric vehicles, motorcycles, and all other vehicles not subject to DMV on-road registration requirements. In addition, California Code of Regulations, Title 16 (16 CCR) §3340.5 specifies that the following vehicles are also exempt: any two-cylinder vehicle, and any two-cycle powered vehicle.

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Refer to **§51.361 Motorist Compliance Enforcement** for a list of exempt vehicles.

Legislation enacted in January 2004 made several changes in motor vehicle Smog Check exemptions that became effective in 2005. The following is a summary of the revised exemptions and the effective date of each change.

- Vehicles six or less model-years old are exempt from the biennial Smog Check inspection requirement.
- Vehicles four or less model-years old are exempt from the Smog Check inspection requirement upon change of ownership and transfer of title transactions with DMV.
- Beginning April 1, 2005, the 30-year rolling exemption was repealed. Instead, vehicles 1975 and older model-year vehicles are exempt.
- Beginning April 1, 2005, vehicles being initially registered in California that were previously registered in another state are exempt if the vehicle is a 1975 and older model-year vehicle. The first 6 model years are not exempt upon initial registration in California. These vehicles are required to undergo a Smog Check inspection.

In addition to these exemption reasons, DMV regulations and policies provide additional reasons for vehicles to be exempt from certain Smog Check inspection requirements as noted in DMV's Handbook of Vehicle Registration Procedures, Chapter 21, provided in Attachment 9. Those include, but are not limited to:

- Change of ownership exemption for family transfers
- Change of ownership and/or biennial exemption for vehicles that are temporarily out of state due to college, military assignment, etc.
- Change of ownership and/or biennial exemption for vehicles registered to addresses out of state

Vehicles are identified by the information recorded on the vehicle DMV registration file: Vehicle Identification Number (VIN), model year, vehicle type, fuel type, Zip Code, etc. Refer to **CFR§51.361 Motorist Compliance** for a complete description of how vehicles are identified for inspection.

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**3. Legal Authority Describing Vehicles Subject to Biennial Inspection**

*Include the legal authority or rule necessary to implement and enforce the vehicle coverage requirement.*

HSC §44011	Certificate of compliance or noncompliance; biennial requirement; exceptions; inspections; exemption from testing for collector motor vehicle
16 CCR §3340.5	Vehicles exempt from inspections
VC §4000.1	Certificate of compliance or noncompliance; statements in lieu of certificate; exemptions; testing for collector motor vehicle
VC §4000.2	Out-of-state motor vehicles; requirements
VC §4000.3	Certificate of compliance; periodic issuance

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**§51.357 TEST PROCEDURE AND STANDARDS**

**SIP Requirements**

- 1. Include a description of each test procedure used.*
- 2. Include the rule, ordinance or law describing and establishing the test procedures.*

**1. Test Procedures**

*Include a description of each test procedure used.*

Detailed test procedures are incorporated into the BAR-97 Emissions Inspection System (EIS) specification (Attachment 10) and Draft Smog Check Inspection Manual.(Attachment 11). The EIS specification covers procedural details such as testing sequence, test time, test weight, and other test parameters.

In the enhanced program areas, the loaded-mode ASM test serves as the primary emissions test, and tests for hydrocarbons, carbon monoxide or oxides of nitrogen pollutants.

In basic and more rural (change of ownership) program areas, the two-speed idle (TSI) test serves as the required emissions test for vehicles subject to inspection and tests for hydrocarbons and carbon monoxide.

The pass/fail standards for each applicable model-year for the ASM test, the TSI test are in 16 CCR §3340.42.

In all areas and in addition to the emissions test, a visual inspection of the vehicle's emission control systems and a functional test of certain emission controls are required. The functional test includes: On Board Diagnostics (OBDII), Malfunction Indicator Light, Exhaust Gas Recirculation, Fuel Cap Pressure, liquid leak, and effective December 1, 2007, Low Pressure Fuel Evaporative System. In addition, the Smog Check test includes a visible smoke test effective March 26, 2008.

**2. Legal Authority for Establishing Test Procedures**

*Include the rule, ordinance or law describing and establishing the test procedures.*

HSC §44011 Certificate of compliance or noncompliance; biennial requirement; exceptions; inspections; exemption from testing for collector motor vehicle

HSC §44012 Test; diesel-powered vehicles; refusal to test specified vehicles

HSC §44012.1 Visible Smoke Test

HSC §44013 Maximum emission standards; studies, experiments, level; test procedures

CCR 3340.42 Mandatory emissions inspection standards and test procedures

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**§51.358 TEST EQUIPMENT**

**SIP Requirements**

*1. Include written technical specifications for all test equipment used in the program and address each of the above requirements (as applicable). The specifications shall describe the testing process, the necessary test equipment, the required features, and written acceptance testing criteria and procedures.*

**Test Equipment Specifications**

*Include written technical specifications for all test equipment used in the program and address each of the above requirements (as applicable). The specifications shall describe the testing process, the necessary test equipment, the required features, and written acceptance testing criteria and procedures.*

Written criteria, performance criteria and acceptance testing procedures for the BAR-97 Emissions Inspection System (EIS) are provided in Attachment 10. Each piece of test equipment is tested for accuracy, response times, repeatability, and other factors affecting the veracity of the test. The software is tested for security, proper operation, record storage and communications with the Electronic Transmission (ET) system.

The total system consists of the dynamometer, the exhaust gas analyzer, peripherals and the associated controls and interfaces. In addition, the BAR-97 EIS includes a bar code reader, fuel cap tester, OBDII link, high speed modem, microprocessor and disk storage and the necessary dynamometer interface hardware and software. A low pressure fuel evaporative tester is also required. The technical specification for the Low Pressure Fuel Evaporative Tester (LPFET) is provided in Attachment 12.

In the enhanced program areas, a loaded mode test is performed using a gas measuring device that measures hydrocarbons, carbon monoxide carbon dioxide, and oxides of nitrogen gases, a sample conditioning system that draws the exhaust gas from the tailpipe, conditions it for testing and delivers the sample to the gas measuring device and a dynamometer. The dynamometer accommodates all two-wheel drive light-duty vehicles, and trucks up to at least 9,999 pounds gross vehicle weight rating (GVWR) and automatically selects inertia weight and horsepower based on the vehicle curb (unladen) weight. The dynamometer is equipped with twin rolls, coupled side-to-side, and capable of inertia simulation. The roll size, surface finish, and hardness are such that tire slippage, wear and noise are minimized under all weather conditions, and that specified accuracy of the distance measurement is maintained.

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**Legal Authority for Technical Specifications**

HSC §44013	Maximum emission standards; studies, experiments, level; test procedures
HSC §44036	Referee and smog check stations; quality assurance of equipment; computer technology; citations and penalties
HSC §44036.1	Certification of equipment pursuant; proof of financial security
CCR 3340.42	Mandatory emissions inspection standards and test procedures

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**§51.359      QUALITY CONTROL**

**SIP Requirements**

- 1. Include a description of quality control and record keeping procedures.*
- 2. The procedure manual, rule, ordinance or law describing and establishing the quality control procedures and requirements.*

**1. Quality Control and Record Keeping Procedures**

*Include a description of quality control and record keeping procedures.*

**Quality Control Procedures:**

The Smog Check program includes equipment and centralized computer database quality control measures as described below.

The quality control requirements for the inspection equipment are described in the BAR-97 EIS and LPFET specifications (Attachments 10 and 12). These include controls for equipment calibration, restrictions for technician access, procedures for certificate accounting, and parameters for data collection.

Gas calibrations and leak checks are automatically performed on the BAR-97 EIS and LPFET every three calendar days. The EIS must pass both the two gas calibration and system leak check and the LPFET must also pass its calibration check to continue performing inspections once the three day period has elapsed. Results of these tests are stored in the analyzer on the EIS hard disk or in the LPFET unit and are transferred to the department with the inspection test data on a regular basis. To insure quality, the calibration records are analyzed by BAR staff to determine the overall accuracy and reliability of the analyzers.

Smog Check stations are required by regulation (16 CCR §3340.17) to maintain the test equipment in accordance with the specifications. Equipment must be kept in good working order in the proper working environment. Only authorized department or manufacturer representatives are allowed internal access to the equipment for service or inspection.

The BAR-97 EIS and LPFET equipment is designed to keep copies of all inspection and calibration test records in electronic format. The EIS records are kept in mirror image files, on both a hard disk and a floppy disk, in the BAR-97 EIS, per the specification and following collection of the data, by use of a floppy disk, the data are moved to a history file on the hard disk in the analyzer. The BAR-97 EIS maintains test data in a secure environment. Tamper detection switches and locks inside the cabinet keep the floppy disk and internal hard disks secure from tampering even with the power off. If a tamper attempt is detected, it is recorded in a file on the hard disk and the unit is locked out from further inspections until reset by authorized personnel. BAR-97 EIS and LPFET units are designed to never allow access to the computer operating system or disk files. The BAR-97 EIS will not start up as normal computers do, and will not "boot-up" from the floppy drive. Test data are only accessed and collected by DCA/BAR personnel or by telephone modem. Telephone access is restricted by the use of multi-layered passwords and a unique protocol.

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**Record Keeping Procedures:**

The state has a centralized data collection system which collects inspection data at the conclusion of every EIS inspection in real-time, known as the Electronic Transmission (ET) system. ET connects each analyzer in the state to a computer network. Security features of this network include Automatic Number Identification (ANI) which matches each emissions testing unit to a station by telephone number. If the station, BAR-97 EIS identification number and calling telephone number do not match, the communication session will be terminated. The host computer also sends a new token to the testing unit with every call which is used to generate a new password. If the password sent by the testing unit does not match the password generated by the host computer, the communication session is terminated. The LPFET units use a similar system.

The communications network and host computers are maintained by contractors. The move to electronic inspection data has allowed the state to integrate the registration-based requirement for Smog Check inspection compliance to a real-time update of DMV files.

**2. Procedure Manual**

*The procedure manual, rule, ordinance or law describing and establishing the quality control procedures and requirements.*

Refer to Laws and Regulations, Attachments 10 and 12 (BAR-97 EIS and LPFET Specifications) and Attachment 11 (Draft Smog Check Manual).

**Legal Authority for Quality Control**

HSC §44036	Referee and smog check stations; quality assurance of equipment; computer technology; citations & penalties
16 CCR §3340.17	Test equipment, electronic transmission, maintenance and calibration requirements

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**§51.360 WAIVERS AND COMPLIANCE VIA DIAGNOSTIC INSPECTION**

**SIP Requirements**

1. Include a maximum waiver rate expressed as a percentage of initially failed vehicles. This waiver rate shall be used for estimating emission reduction benefits in the modeling analysis.
2. A description of the waiver criteria and procedures, including cost limits, quality assurance methods and measures, and administration.

**1. Maximum Waiver Rate**

*Include a maximum waiver rate expressed as a percentage of initially failed vehicles. This waiver rate shall be used for estimating emission reduction benefits in the modeling analysis.*

In the California Smog Check Program only the state-contracted Referee is authorized to issue a waiver. For the 2008 Calendar Year (between January 1 and December 31, 2008), the Referee issued a combined total of 3,170 Repair Cost Waivers, Economic Hardship Extensions, and Limited Parts Exemptions (refer to the Table below). The combined waiver rate (including waivers, extensions, and exemptions) totals less than one quarter of one percent (.25%) of the total Smog Check failures.

	<b>Total Failed Vehicles</b>	<b>Repair Cost Waivers</b>	<b>Hardship Extensions</b>	<b>Limited Parts Exemptions</b>	<b>Total</b>
<b>Total Number</b>	<b>1,222,664</b>	<b>961</b>	<b>2,150</b>	<b>59</b>	<b>3,170</b>
<b>% of all Failures</b>		<b>0.078%</b>	<b>0.175%</b>	<b>0.0048%</b>	<b>0.258%</b>

**2. Waiver Criteria and Process**

*A description of the waiver criteria and procedures, including cost limits, quality assurance methods and measures, and administration.*

The three variations of waivers issued by the state-contracted Referee (Repair Cost Waivers, Economic Hardship Extensions, and Limited Parts Exemptions) are described below:

**Repair Cost Waiver:**

A vehicle may qualify for a Repair Cost Waiver if the vehicle emissions have not been reduced below emission standards, or the vehicle fails one or more functional tests, and/or the vehicle has defective emission control parts; but further effective repairs would exceed the cost waver limit or the cost minimum has been met. Prior to issuance of a repair cost waiver, an after-repairs test must have been performed. Vehicles which fail the emission and/or functional tests may be eligible for a one time repair cost waiver if effective repairs costing \$450.00 or more have been performed and additional repairs will exceed the repair cost waiver limit, as estimated by the Smog Check Station.

Vehicles, which have missing, modified or disconnected ECS, are not eligible for a waiver certificate. If a vehicle fails the Visible Smoke Test, a waiver is only available to consumers

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with limited incomes. However, the owner may be eligible for up to \$500 in repair assistance or may received \$1,000 for voluntarily retiring their vehicle.

A Waiver Certificate is valid for re-registration, but cannot be used for transfer of ownership or initial registration in the state. The Repair Cost Waiver allows the vehicle owner up to 24 months to repair the vehicle to pass the Smog Check Inspection. The vehicle may be inspected at any licensed Smog Check station the next time a Smog Certificate is required, but must pass the Smog Check Inspection the next time a Smog Certificate is required. The Vehicle may be eligible for a Waiver Certificate afterwards.

**Economic Hardship Extension:**

To qualify for the Economic Hardship Extension, a low income consumer (vehicle owner) must have a household income that does not exceed 185 percent of the federal poverty level.

Currently, an Economic Hardship Extension may be issued by the state-contracted Referee to a low income consumer as a result of one of the following three scenarios:

- An Economic Hardship Extension may be issued to a qualified low income consumer who has participated in the “Repair Assistance” option of the CAP wherein the Gold Shield Station has performed repairs or determined that the vehicle can not be repaired within the CAP Program repair allowance, and the vehicle is in need of additional emission-related repairs to restore the vehicle to a passing condition; or
- An Economic Hardship Extension may also be issued to a qualified low income consumer who has spent at least \$250 on emission control system repairs that have not restored the vehicle to a passing condition; or
- An Economic Hardship Extension may be issued to a “Qualified Low Income Consumer” who has a repair estimate for their vehicle’s Emission Control System that exceeds \$250 dollars, but has not yet spent any money on emission-related repairs.

**Limited Parts Exemption:**

A Limited Parts Exemption provides relief to consumers who are unable to locate needed emission control parts. To qualify, the consumer must first work with the state’s Emission Parts Locator Service to determine whether the needed emission control part is available from any parts supplier within California. If the needed emission part is determined to be unavailable, the consumer will receive a Limited Parts Exemption for use by the state-contracted Referee.

The Limited Parts Exemption allows the Referee to issue a Smog Check certificate, even if the emission controls/parts for which the exemption was issued are defective, missing modified or disconnected. The vehicle must pass all other aspects of the Smog Check inspection performed by the Referee to be eligible for certification with a Limited Parts Exemption. For future certification, the part(s) must be installed or the vehicle owner must obtain another Limited Parts Exemption.

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**Consumer Assistance Program:**

The California Legislature created the Consumer Assistance Program (CAP) in 1998 (HSC §44062.1) in response to legislators' concerns stemming from the high cost to bring failing vehicles into compliance with Smog Check laws. CAP provides financial assistance to repair polluting vehicles through a network of Gold Shield stations. These CAP services are funded through the High Polluter Repair or Removal Account (HPRRA) in the Vehicle Inspection and Repair Fund (VIRF) (HSC §44091).

The repair assistance option is available to consumers meeting a 225% federal Poverty Guidelines (FPG) criterion, or test only directed who own vehicles that have failed a mandated Smog Check inspection. The CAP technical team analyzes requested emission repairs performed at contracted Gold Shield stations and monitors the repairs to ensure that industry standards and cost-effective repair strategies are utilized to maximize emission reductions. Currently, the repair assistance option funds repairs up to a maximum of five hundred dollars. However, average program repair costs have remained between three hundred to three hundred-fifty dollars over the life of the program, despite tightening of tailpipe cutpoints.

The CAP provides technical assistance and access to automotive repair information to the Gold Shield stations through phone contact and periodic symposiums (USEPA §51.369 (a) (1) & (2)). CAP staff educates eligible Repair Assistance consumers as to the existence of emission related warranties and recalls for their vehicles, and provides information and guidance to assist consumers in obtaining these repairs (USEPA §51.361 (c) (2)). CAP staff conducts evaluations of Gold Shield stations' repair quality both during the repair process, and through post-repair reviews (USEPA §51.363).

Ineffectual emission repairs are tracked, trends identified and referrals generated for BAR Enforcement to investigate the appropriateness of suspect repairs. Continued non-compliance with CAP procedures and policies, or violations of law can result in invalidation of the CAP contract and loss of Gold Shield certification (USEPA §51.363 (4) (vii) (b), and §51.365).

A vehicle that has been repaired through the CAP may qualify for a Repair Cost Waiver or an Economic Hardship Extension if the vehicle emissions have not been reduced below emission standards, or the vehicle fails one or more functional tests, and/or the vehicle has defective emission control parts; but further effective repairs would exceed the cost limits and the cost minimum has been met. In all such cases, an after repairs test must have been performed.

**Vehicle Retirement:**

The vehicle retirement option is available to consumers who own vehicles that have failed a mandated Smog Check inspection. There is no income eligibility requirement for this option. The consumer is paid \$1,000 to voluntarily retire a vehicle from operation rather than have it repaired. BAR contracts with auto dismantlers who crush the vehicles, thereby eliminating a polluting vehicle from the road.

**3. Legal Authority for Cost Limits**

*Include the necessary legal authority, ordinance, or rules to issue waivers, set and adjust cost limits as required in paragraph (a)(5) of this section, and carry out any other functions necessary to administer the waiver system, including enforcement of the waiver provisions.*

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HSC §44001.3	Legislative findings and declarations; repair cost limits
HSC §44015	Certificate of compliance or noncompliance; issuance requirements; repair cost waivers; economic hardship extensions; validity of certificate; time of test
HSC §44017	Repairs; cost limitations
HSC §44017.1	Maximum repair cost limitations

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**§51.361 MOTORIST COMPLIANCE ENFORCEMENT**

**SIP Requirements**

*Provide information concerning the enforcement process, including:*

- 1. A description of the existing compliance mechanism if it is to be used in the future and the demonstration that it is as effective or more effective than registration-denial enforcement.*
- 2. An identification of the agencies responsible for performing each of the applicable activities in this section.*
- 3. A description of and accounting for all classes of exempt vehicles.*
- 4. A description of the plan for testing fleet vehicles, rental car fleets, leased vehicles, and any other subject vehicles, e.g. those operated in but not necessarily registered in the program area.*
- 5. A determination of the current compliance rate based on a study of the system that includes an estimate of compliance losses due to loopholes, counterfeiting, and unregistered vehicles. Estimates of the effect of closing such loopholes and otherwise improving the enforcement mechanism shall be supported with detailed analyses.*
- 7. A commitment to an enforcement level to be used for modeling purposes and to be maintained, at a minimum, in practice.*
- 6. Include the legal authority to implement and enforce the program.*

**1. Registration Denial Enforcement**

*A description of the existing compliance mechanism if it is to be used in the future and the demonstration that it is as effective or more effective than registration-denial enforcement.*

Current California law requires a vehicle owner or operator to obtain a certificate of compliance as a condition of either change-of-ownership, initial registration in this state, or biennial renewal of vehicle registration. The DMV records specify VIN, make, model, model-year, motive of power, gross vehicle weight rating (GVWR) and the owner or operator's address. Based on this information and the applicability of the Smog Check program, the DMV sends a vehicle registration renewal notice, which indicates whether or not a Smog Check certificate is required. Without the proper certificate, the DMV will refuse to complete the registration transaction. When a biennial or initial registration transaction is completed, the owner or operator of the vehicle is issued a sticker that is affixed to the license plate. This sticker indicates the year of expiration of the registration. (Another sticker that indicates the month of expiration is issued upon initial registration and remains the same from year to year.) Based on a current sticker, one can assume that the vehicle has met biennial or initial registration requirements, which would include the required Smog Check inspection. On change-of-ownership, the existing registration sticker may be valid for up to 12 months. If a smog certificate is not submitted, the DMV will not transfer the ownership, which makes obtaining financing and insurance more difficult.

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HSC §44056 prohibits a vehicle owner or operator from:

- Obtaining or attempting to obtain a certificate of compliance without being in compliance with specified testing and emission requirements;
- Registering a vehicle at an address other than the owner or operator's residence address for the purpose of avoiding Smog Check requirements.

Any vehicle owner or operator in violation of HSC §44056 would be subject to action brought by the Attorney General, in the name of the state on behalf of the DCA, or brought by any district attorney, city attorney or attorney for a district for recovery of specified civil penalties.

Remote sensing and on-road pullovers identify some vehicles that are out of compliance. Refer to **§51.371 On-Road Testing** for more details on the audit program to ensure that gross polluters are identified and are properly tested and repaired.

## **2. Agencies Responsible for Enforcement**

*An identification of the agencies responsible for performing each of the applicable activities in this section.*

The biennial motorist compliance enforcement program is enforced by the Department of Motor Vehicles (DMV), through ensuring that owners of all subject vehicles are denied registration unless they provide a valid certificate of compliance. The California Highway Patrol (CHP) and local law enforcement agencies take the lead in citing motorists who fail to comply with the registration requirements (often a citation given in addition to a primary violation). Parking enforcement employees also have the authority to ticket parked vehicles with expired or otherwise invalid license plates.

## **3. Exempt Vehicles**

*A description of and accounting for all classes of exempt vehicles.*

The following vehicles are exempt from the Smog Check program:

- Pre-1976 vehicles;
- Non-commercial diesel vehicles;
- Electric Vehicles;
- Two cylinder
- Two Stroke
- Under 50 Cubic Inch Displacement (CID)
- Vehicles registered outside the biennial program areas which are exempt from the biennial program but not the change-of-ownership program.
- Vehicles 6 or less model-years old are exempt from the biennial Smog Check Program.

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- Vehicles 4 or less model-years old are exempt from the Smog Check inspection requirement upon change of ownership and transfer of title transactions with DMV
- Vehicles being initially registered in California that were previously registered in another state are exempt if the vehicle is a 1975 and older model-year vehicle. Newer vehicles, the first 6 model years, are not exempted upon initial registration in California. These vehicles are required to undergo a Smog Check Inspection

Refer to **§51.356 Vehicle Coverage** for more details.

#### **4. Fleet Vehicles**

*A description of the plan for testing fleet vehicles, rental car fleets, leased vehicles, and any other subject vehicles, e.g. those operated in but not necessarily registered in the program area.*

Currently, businesses operating 10 or more affected vehicles may inspect and repair their own fleet vehicles. However, businesses are required to obtain a Smog Check station license (which includes licensing of technicians) from BAR in order to participate. Once a business fleet is licensed, all other program controls, monitoring and enforcement apply. Other owners of vehicle fleets may comply by having their vehicles tested by licensed Smog Check stations, wherein all program controls, monitoring and enforcement apply.

Public agencies (operating any number of vehicles) may inspect and repair their own fleet vehicles. Public agency fleets are required to test their affected vehicles and report their compliance efforts to BAR annually, since the vehicle registrations do not have to be renewed.

Additionally, neither business fleets nor public agencies are eligible for waivers on biennial inspection. Further, neither fleet entity may participate in the Consumer Assistance Program (CAP), for either the repair assistance or vehicle retirement option.

The following is a description of the vehicles that primarily operate on federal installations and routinely operate in program areas but are not registered in the program areas.

#### **Active Duty Military Personal Vehicles:**

Vehicle Code §6701 allows a nonresident owner of a vehicle registered in another state, who is an active member of the United States Armed Forces, to operate the vehicle in California without being registered in California. The vehicle is subject to the following requirements:

- The vehicle must display valid license plates issued by another state;
- The vehicle license plates and registration must be issued to the military person;
- The vehicle license plates and registration must be issued by the state where the military person was last stationed or by the state the military person claims as a permanent state of residence; and

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- The owner must have in force a specified form of financial responsibility.

Vehicles meeting these criteria are exempt from California registration and therefore, would not be subject to California's Smog Check program.

However, pursuant to Section 118 of the federal Clean Air Act, federal employees who operate vehicles on federal property must furnish proof of compliance with the applicable requirements of any vehicle emission inspection program established in the state in which the federal property is located.

Proof of compliance must be presented to the base authority in one of the following ways:

- Certified inspection by a licensed Smog Check station;
- Proof of registration within the geographic area covered by the I/M program; or
- Another method approved by the vehicle I/M Program administrator.

Currently, there is not an established interactive policy between the DCA/BAR and federal installation authorities to ensure enforcement of this provision. Therefore, enforcement of this provision is strictly the responsibility of the installation authority.

**Federal Government Fleet Vehicles:**

Pursuant to Section 118 of the federal Clean Air Act, federal vehicles, except those identified as military tactical vehicles, are subject to the Smog Check program. Therefore, vehicle inspections, on at least a biennial basis, are required to ensure that the vehicles meet specified emission requirements.

Government fleets are permitted to self test within their own maintenance facilities provided that they meet the required equipment standards and tests are performed in accordance with established inspection procedures. Government fleets are issued a DCA/BAR file number for identification, compliance and reporting purposes.

Government fleets are required to report annually to the DCA/BAR the number of vehicles inspected, the number of vehicles owned and a schedule of when the vehicles are inspected, either biennially (odd or even determined by last digit of VIN number) or annually (total vehicles inspected every year). DCA/BAR enforcement oversight is performed by on-site inspections and by audits of inspection records.

**5. Compliance Enforcement**

*A determination of the current compliance rate based on a study of the system that includes an estimate of compliance losses due to loopholes, counterfeiting, and unregistered vehicles. Estimates of the effect of closing such loopholes and otherwise improving the enforcement mechanism shall be supported with detailed analyses.*

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VC §27156(a) and (b) prohibit the operation of gross polluting vehicles on California highways and roadways, as well as the removal or modification of any required emission device. Compliance is enforced as follows:

- Identification of gross polluting vehicles during a biennial or change-of-ownership inspection and must be certified at a test-only or Gold Shield station; or
- Historical emission data is used to determine which vehicles are likely to be classified as High Emitter Profile (HEP) vehicles. These vehicles are directed and must be certified at a test-only or Gold Shield stations.

A vehicle may qualify for a Repair Cost Waiver if the vehicle emissions have not been reduced below emission standards, or the vehicle fails one or more functional tests, and/or the vehicle has defective emission control parts; but further effective repairs would exceed the cost waver limit and the cost minimum has been met. (Refer to §51.360 Waivers and Compliance.)

HSC §44056 requires that vehicle owners or operators be subject to specified civil penalties if they obtain, or attempt to obtain, a certificate of compliance by means of fraud, including offering or giving any form of financial or other inducement to any person for the purpose of obtaining a certificate of compliance for a vehicle which has not been tested or which has been tested improperly. A person obtaining a smog certificate by means of fraud may be subject to a civil penalty, and also may be subject to criminal prosecution.

**7. Enforcement Level**

*A commitment to an enforcement level to be used for modeling purposes and to be maintained, at a minimum, in practice.*

The registration compliance rate of 98% was used for the performance estimates provided pursuant to sections 51.351 and 51.352 of this submittal. The 98% was derived from the number of certificates issued to passing vehicles in 2006. Non compliance is due to expired registrations, junked vehicles, vehicles leaving the state and miscellaneous other reasons.

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**Legal Authority for Motorist Compliance Enforcement**

*Include the legal authority to implement and enforce the program.*

HSC §44019	Motor vehicles owned by public agencies; certificates of compliance; report to department; alternative proofs of compliance
HSC §44020	Fleet owners electing to test and conduct service and adjustment on fleet vehicles; conditions
HSC §44056	Violation; civil penalty; action; exception
VC §4000.1	Certificate of compliance or noncompliance; statements in lieu of certificate; exemptions; testing for collector motor vehicle
VC §4000.2	Out-of-state motor vehicles; requirements
VC §4000.3	Certificate of compliance; periodic issuance
VC §27156	Gross polluter; air pollution control devices; fines

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**§51.362 MOTORIST COMPLIANCE ENFORCEMENT OVERSIGHT**

**SIP Requirements**

*A description of the enforcement program oversight and information management activities.*

**Refer to §51.361 Motorist Compliance Enforcement**

The Smog Check Program uses a centralized computer database which provides real-time transmission of vehicle inspection data as well as additional quality control and enforcement. The electronic transmission process is referred to as "ET."

This system is designed to alert Smog Check stations to motorists who may be "shopping" for a certificate. For example, a station would be alerted, before an inspection, that a vehicle had failed several times in the last few days. That would alert the station to look for appropriate repairs, or the possible switching of paperwork between vehicles. More importantly, the current station will know that the central computer "knows" that the vehicle has failed several times. The shop personnel would be much less likely to "clean pipe"<sup>1</sup> a vehicle when they know that the program expects to see data on appropriate repairs before the emissions are reduced, and greater scrutiny may be given to the actual emission levels (e.g. do the alleged emission levels seem reasonable for the model-year, mileage, and type of vehicle?).

ET enhances field enforcement ability to investigate illegal activity by providing real-time data of vehicles (in less than 2 minutes) while being tested or after a test is completed. In addition, the data can be analyzed post-inspection for patterns that identify suspicious Smog Check activities such as improper passing vehicles and issuance of certificates to vehicles not in compliance with the Smog Check requirements.

Pursuant to legal authority, and an interagency agreement between DCA/BAR and the DMV, the DMV has the authority necessary to develop and implement the enforcement program oversight element of the Smog Check program by way of registration denial for noncompliance.

**Information Management Activities**

The DMV Manual of Registration Procedures (Chapter 21) in Attachment 9 details the procedures to be followed by DMV personnel involved in the Smog Check program with regard to document handling and processing.

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<sup>1</sup> "clean piping" is the use of a sample of the exhaust emissions of one vehicle in order to cause the Emission Inspection System to issue a certificate of compliance for another vehicle (CCR 16 §3340.1(t)).

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Currently, the quality of the enforcement program's information base is assured through the use of vehicle identification information entry at DMV and the Smog Check station, the use of trackable certificate serial numbers, Smog Check station and technician license numbers, and other identifiers at each step of the inspection and registration process, so that responsible personnel can be alerted if problems occur at any step of the process.

**Legal Authority for Enforcement Oversight**

HSC §44037	Compilation and maintenance of records to ensure validity and reliability of tests and repairs
VC §4000.1	Certificate of compliance or noncompliance; statements in lieu of certificate; exemptions; testing for collector motor vehicle
VC §4000.2	Out-of-state motor vehicles; requirements
VC §4000.3	Certificate of compliance; periodic issuance

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**§51.363      QUALITY ASSURANCE**

**SIP Requirements**

*A description of the quality assurance program and written procedures manuals covering both overt and covert performance audits, record audits, and equipment audits. This requirement does not include materials or discussion of details of enforcement strategies that would ultimately hamper the enforcement process.*

**Quality Assurance Program**

*A description of the quality assurance program and written procedures manuals covering both overt and covert performance audits, record audits, and equipment audits. This requirement does not include materials or discussion of details of enforcement strategies that would ultimately hamper the enforcement process.*

BAR has operated a "Triggers" computer program since 1992. This program has approximately 20 modules and is intended to identify statistical patterns which indicate fraudulent behavior by Smog Check stations. Each module analyzes a hypothesis about a particular pattern of behavior. Test data are analyzed to make undesirable behavior stand out. Some modules include a dozen or more steps and comparisons of individual station data to statewide averages.

Quality Assurance (QA) inspections are overt audits of a Smog Check station's performance. During the audit, BAR inspectors check four major aspects of a station's performance. First, they analyze Vehicle Information Database (VID) test records from a Smog Check station to look for any anomalies in that station's performance when compared with other stations and with vehicle emissions data collected at random on the road. Second, they ensure that stations meet regulatory requirements for Smog Check-related equipment, manuals and signage. Third, they inspect the station's invoices and vehicle inspection reports (VIRs) to ensure that repairs were appropriate for the problems identified on the emissions test and also that the information in the invoice matches the information entered in the VID. Fourth, they ask the station's technicians under certain circumstances to perform a Smog Check inspection and demonstrate the use of diagnostic tools to ensure that the technicians have appropriate skills for Smog Check testing and repair.

Stations found deficient on the audit receive follow-up visits to determine if performance has improved. Although citations are rare on the initial audit, stations may be cited on follow-up audits if they fail to remedy deficiencies. BAR expects to perform a QA inspection on every Smog Check station in the enhanced areas of the state at least twice per year. Test-only and Gold Shield stations are also given at least two QA inspections per year but are monitored more closely. The increased monitoring of test-only and Gold Shield stations are intended to improve the probability that High Emitter Profile (HEP) gross polluting vehicles are properly tested and repaired.

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Currently, the goals and objectives of the QA Program are to provide feedback to the DCA/BAR on possible violations such as fraudulent certificate issuance, excessive or unnecessary repairs, to detect areas where stations/technicians require additional training; to perform complete, accurate and timely inspections of smog check facilities; to provide feedback to technicians and station owners on procedures, problems and other discrepancies noted during a quarterly inspection; to report findings to the DCA/BAR in the appropriate time frames; to perform uniform and consistent QA inspections of all Smog Check stations; to provide guidance to all licensed technicians as needed; to positively reinforce the technicians'/stations' responsibility and opportunity to improve air quality; to provide pertinent information and guidance to the licensed Smog Check technicians and stations and to assist the DCA/BAR in achieving consumer protection and maximum air quality benefits.

**Covert Audits by Oversight Agency:**

BAR conducts undercover runs on Smog Check stations using vehicles that have missing, modified and/or disconnected emission control devices. These audits are conducted continuously throughout the State whenever information (such as triggers, informants, complaints, statistical review, EIS data analysis etc.) indicates such audits are necessary. These audits detect those licensees that are not conducting inspections according to procedures required by law or regulation.

Investigations are conducted using surveillance vehicles and equipment. These audits detect unlicensed activity, as well as the issuance of certificates of compliance to vehicles that have not been properly inspected and/or were not on the premises at the time the certificates were issued.

DCA/BAR also makes use of informants, in both overt and covert enforcement activities.

**Training and Proficiency of DCA/BAR staff:**

Program Representatives (PRs) are recruited from the industry with an extensive list of technical qualifications and past automotive experience. The PRs represent a cross section of the automotive repair industry and include automotive instructors, licensed auto technicians, test equipment manufacturer's representatives and engineers. The PRs often bring with them degrees in auto technology; smog, lamp, and brake licenses; and other industry recognized certifications. The requirements for employment as a PR are passing a written automotive mechanical test that includes questions regarding engine diagnosis, engine repair, fuel and ignition systems, emission control systems, report writing skills and interviewing techniques.

The DCA/BAR provides training to PRs, on all currently approved emission analyzers. DCA/BAR also maintains an extensive technical library, which covers all aspects of automotive diagnosis and repair, including that of emission control systems.

In addition to entry level qualifications, the DCA/BAR's Technical Training Unit further enhances the PRs abilities by furnishing basic and ongoing training in program rules and regulations, state administrative procedures, laws, and QA practices. Further training is done in more advanced investigative practices dealing with search and seizure, evidence gathering techniques, covert operations and disciplinary actions.

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**Legal Authority for Quality Assurance**

HSC §44002	Development and implementation of program; administration and enforcement of chapter
HSC §44035	Suspension and revocation of license or qualification; hearing; rules and regulations
HSC §44036	Referee and smog check stations; quality assurance of equipment; computer technology; citations and penalties

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**§51.364 ENFORCEMENT AGAINST CONTRACTORS, STATIONS AND INSPECTORS**

**SIP Requirements**

- 1. Include the penalty schedule and the legal authority for establishing and imposing penalties, civil fines, license suspension, and revocations.*
- 2. In the case of state constitutional impediments to immediate suspension authority, the state attorney general shall furnish an official opinion for the SIP explaining the constitutional impediment as well as relevant case law.*
- 3. Describe the administrative and judicial procedures and responsibilities relevant to the enforcement process, including which agencies, courts and jurisdictions are involved; who will prosecute and adjudicate cases, and other aspects of the enforcement of the program requirements, the resources to be allocated to this function and the source of those funds. In states without immediate suspension authority, the SIP shall demonstrate that sufficient resources, personnel and systems are in place to meet the three day case management requirement for violations that directly affect emission reductions.*

**1. Enforcement**

*Include the penalty schedule and the legal authority for establishing and imposing penalties, civil fines, license suspension, and revocations.*

**Enforcement for Licensed Stations and Technicians:**

The DCA/BAR enforcement program employs progressive disciplinary methods and proactively works with licensees in order to encourage compliance with the laws and regulations governing the Smog Check program. BAR field staff provides education to industry by performing station inspections, issuing verbal warnings, holding informal conferences, or giving educational presentations such as “Write it Right” invoice training.

Formal investigations are initiated when a Smog Check station is suspected of committing fraud or other serious violations. Formal investigations may include vehicle reinspections, undercover operations, surveillance, record reviews or an analysis of vehicle information data.

The DCA/BAR has the authority to issue a citation to the owner of a Smog Check station imposing a monetary fine or a Smog Check Technician imposing a training requirement. Health and Safety §§44051 and 44051.5 list the offenses and the minimum/maximum penalty for each offense. The decision on the type or amount of the penalty is determined by aggravating factors such as recidivism.

When an investigation substantiates significant violations, the DCA/BAR requests administrative, criminal or civil disciplinary action from the Office of the Attorney General, the District Attorney’s Office or the local City Attorney’s Office. Under B&P §§17200 and 17500 a penalty of civil fines not to exceed \$2,500 or imprisonment not to exceed 6 months may be imposed. Accusations prosecuted by the Office of the Attorney General, seeking discipline against a license, are conducted in accordance with Government Code, Title 2, Division 3, Part 1, Chapter 3.5, Chapter 4, and Chapter 5 (The Administrative Procedure Act or APA).

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Under Penal Code §23, the DCA/BAR has the legal authority to furnish pertinent information, make recommendations regarding specific conditions of probation, or provide any other assistance necessary in any criminal proceeding against a person who has been issued a license to engage in a business or profession by a state agency.

**2. Constitutional Impediments to Immediate Suspension Authority**

*In the case of state constitutional impediments to immediate suspension authority, the state attorney general shall furnish an official opinion for the SIP explaining the constitutional impediment as well as relevant case law.*

Not applicable, Health and Safety Code §44072.10 authorizes temporary suspension of a license for 60 days, pending an administrative hearing. Business and Professions Code §125.8 authorizes temporary restraining or other appropriate orders restraining licensees; law governing; accusations; dissolution of order.

**3. Administrative and Judicial Procedures**

*Describe the administrative and judicial procedures and responsibilities relevant to the enforcement process, including which agencies, courts and jurisdictions are involved; who will prosecute and adjudicate cases, and other aspects of the enforcement of the program requirements, the resources to be allocated to this function and the source of those funds. In states without immediate suspension authority, the SIP shall demonstrate that sufficient resources, personnel and systems are in place to meet the three day case management requirement for violations that directly affect emission reductions.*

There are various kinds of disciplinary actions (i.e., administrative, civil, criminal). For example, criminal action may be requested through local District Attorneys. Civil action may be taken by either the DCA/BAR or requested through local District Attorneys.

**Administrative Action:**

Any formal action taken by BAR against a registrant/licensee must be done in accordance with procedures outlined in the Administrative Procedures Act (APA) as contained in the California Government Code. After a notice and hearing, held in accordance with the administrative adjudication provisions of the APA, any of the following forms of disciplinary action may be imposed:

- Outright revocation of the license or registration. No new license or registration may be issued within a period of one year.
- Revocation stayed, with the license or registration placed on probation (usually for a period of from 1 to 5 years).
- The suspension of the license or registration for a specific number of days or months may also be included with probation.

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**Statutory Basis for Administrative Actions:**

Business and Professions Code §9884.7 sets forth the conditions under which a license or registration may be revoked, suspended, or denied. Health and Safety Code §44035 provides the conditions under which Smog Check station and technician licenses and qualification certificates for Gold Shield stations may be suspended or revoked.

**Criminal / Civil Action:**

The DCA/BAR also files civil and/or criminal cases with the local city or district attorney's offices. In most of these filings, the Smog Check station owner and licensed technician are placed on probation. Probationers may conduct Smog Check tests and repairs. The conditions of probation provide for speedy revocation of probation for any violation of law, thereby allowing the revocation of all licenses which are under probation. The actual order when probation is invoked is the revocation of all license(s), stayed for the duration of the imposed probation period and requires the probationer not to violate any laws.

In some cases, subjects are arrested and equipment seized, and convictions have resulted in jail time and the imposition of fines as reimbursement for investigative costs and restitution.

**Temporary Suspension:**

HSC §44072.10 authorizes temporary suspension of a license for 60 days, pending an administrative hearing.

Other existing statutes give the DCA/BAR the authority to:

- Request a superior court injunction, or restraining order when DCA/BAR believes a person will subvert, or attempt to subvert, a licensing examination.
- Request a superior court injunction, or restraining order when DCA/BAR believes a person has engaged or is about to engage in any act which constitutes a violation of the Business and Professions Code.
- Request a temporary restraining order when DCA/BAR believes a person has engaged or is about to engage in any act which constitutes a violation of the Business and Professions Code.
- Request an administrative law judge to issue an interim suspension order suspending a license when continued activity would endanger the public health, safety, or welfare.
- Enjoin continuing violations of provisions of the Health & Safety Code, or orders, rules, or regulations adopted pursuant to this code. A temporary restraining order may be granted immediately if it is shown that the respondent continues, or threatens to continue, violating the code, or orders, rules, or regulations adopted pursuant to this code.
- Seize records, including emissions analyzers and the records contained therein, under computer fraud statutes.

Refer to **§51.354 Adequate Tools & Resources** for a description of the resources that are allocated.

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**Legal Authority for Station and Technician enforcement**

B&P §123.5	Engagement in practices constitution a violation under §123; injunction or restraining order
B&P §125.5	Injunction; law governing restitution; reimbursement of board expenses
B&P §125.8	Temporary restraining or other appropriate order restraining licensee; law governing; accusations; dissolution of order
B & P §494	Interim Order; notice; hearing; decision; judicial review; noncompliance
B&P §9884.7	Grounds to refuse validation or to invalidate registration
B&P §17200	Unfair competition; prohibited activities
B&P §17500	False or misleading statements; penalty
HSC §44030	Smog check stations; standards for licensing.
HSC §44030.5	Administration of training courses; standards for certification of training institutions and instructors.
HSC §44034.1	Smog check technicians; examination fees.
HSC §44035	Suspension and revocation of license or qualification; hearing; rules and regulations
HSC §44036	Referee and smog check stations; quality assurance of equipment; computer technology; citations and penalties.
HSC §44036.1	Certification of equipment pursuant to HSC §44036 proof of financial security.
HSC §44036.2	Emission control system service information; electronic formatting; condition of certification; accessibility to vehicle computer memory program; engine family reprogramming cross reference; computer compatibility; applicability.
HSC §44036.3	Referral to private diagnostic assistance service information vendors or intermediaries; applicability.
HSC §44036.5	Test analyzer system (TAS) calibration gases; standards.
HSC §44036.8	Data collected by smog check station equipment; use by technician or operator in appeal of citation.
HSC §44037.1	Centralized computer data base and computer network; capabilities; data transmissions.
HSC §44040	BAR codes; certificates of compliance and waivers; periodic validity checks.
HSC §44041	Vehicle identification bar code labels or documents; use at smog check stations.
HSC §44045.5	Smog check technicians; licensing requirements; categories; renewal.

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HSC §44045.6	Smog check technicians; training requirements; certification of facilities; remedial training or other disciplinary action; revocation or suspension.
HSC §44051	Civil penalties; violations of this chapter.
HSC §44051.5	Civil penalties; violations of Title 16 of California Code of Regulations.
HSC §44056	Violation; civil penalty; action; exception.
PC §23	State-licensed professional; criminal proceeding against; appearance by licensing agency
PC §502(c)(1)	Unauthorized access to computers, computer systems and computer data

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**§51.365 DATA COLLECTION**

**SIP Requirements**

*Per USEPA provide applicable record layouts, ie. test, repair, calibration.*

The information collected during the Smog Check inspection is described in detail in the equipment specifications (Attachments 10 and 12). The information includes calibration results, inspection cost survey, repair records, second by second test records, smog check test results and LPFET test results. The actual record layouts are proprietary and confidential.

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**§51.366 DATA ANALYSIS AND REPORTING**

**SIP Requirements**

*1. Describe the types of data to be collected.*

California has submitted the required annual and biennial report for CY2006 and CY2007 and will continue to submit the required reports annually by July 31<sup>st</sup>.

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**§51.367 INSPECTOR TRAINING AND LICENSING OR CERTIFICATION**

**SIP Requirements**

*A description of the training program, the written and hands on tests, and the licensing or certification process.*

**Certification Program**

*A description of the training program, the written and hands on tests, and the licensing or certification process.*

Prerequisites for licensure incorporate the requirement for National Institute for Automotive Service Excellence (ASE) certification (or an equivalent training program) and allow individuals who have an associate degree in automotive technology, but lack the four years of work experience, to take the Smog Check technician exam.

Smog Check technicians need to be certified in the following ASE (or equivalent training program) standards: Engine Performance, Electrical/Electronic Systems, and Advanced Engine Performance.

Training on use of dynamometers is required for all technicians seeking an Advanced Emission Specialist (EA) Technician license. Possession of an EA is required to work in enhanced areas.

**Approved Training Courses:**

The BAR Clean Air Car Course (CACC) is designed as a basic and advanced training course focused on inspecting, diagnosing and repairing vehicles that fail an emission test. Students entering the course are required to have a background in basic fuel, electrical, and engine performance systems. BAR approves instructors to teach the CACC courses. At least biennially, instructors are required to successfully complete update training to keep current with the latest technologies and/or changes in the Smog Check program.

BAR certifies CACC schools, which are required to have adequate tools, diagnostic equipment, and demonstration vehicles to enable students to gain experience in testing, diagnosing, and repairing today's high-tech vehicles. BAR inspects the schools periodically for tools and equipment compliance.

The course is designed to correspond to the subject matter categories contained in the Examination Plan for the licensing examination.

**Remedial Training:**

When a technician's skills are found to be below standards, BAR's Field Operations and Enforcement Division may prescribe specific training in order for the technician to maintain the license. BAR may issue a citation mandating that the technician attend specific training provided by a BAR-certified institution. The level of mandated training can vary from 8 to 96 hours, depending upon the technician's past performances. If the technician receives several citations, BAR may revoke or suspend their license.

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**Update Training:**

As a prerequisite for biennial Smog Check license renewal, each Smog Check technician must successfully complete a BAR Update Training Course designed to provide training on new automotive technology that affects emission testing and/or repairs and/or changes in the Smog Check program. Applicants for an initial license must also provide satisfactory evidence of successful completion of the BAR certified update-training courses.

**Initial Applicant Testing:**

The DCA/BAR requires all initial applicants to take and pass an examination developed and administered by the DCA/BAR. The exam is comprised of approximately 100 multiple-choice questions pertaining to the knowledge, skills, and abilities needed to adequately perform Smog Check inspections, diagnosis and repairs. The occupational analysis, development of the examination, and its passing score, are developed and validated by practicing Smog Check technicians and instructors called Subject Matter Experts (SMEs) under the guidance of the Department's Office of Examination Resources. The minimum passing score varies with the difficulty level of each version of the exam. Currently, the minimum passing score for the EA technician examination is 69 correct answers out of a total of 100 questions with 2 1/2 hours to complete. The Basic Smog Check technician (EB) examination requires 67 correct out of a total of 99 questions with 2 1/2 hours to complete.

The DCA/BAR follows standard psychometric practices, as well as the legal guidelines set forth in federal and state law when developing examinations. The DCA/BAR goal is to ensure the examinations are fair, job-related, and legally defensible.

In conjunction with a periodic (every six months to a year) BAR Quality Assurance (QA) inspection audit conducted at each station, BAR Program Representatives (PRs) conduct hands-on audits of Smog Check technicians to verify their ability to perform Smog Check inspections and diagnoses. Hands-on audits are conducted when evidence exists that a Smog Check technician may lack the skills required to perform a proper inspection. Anyone failing this audit is counseled on the appropriate inspection and/or diagnostic procedures, and if necessary, referred for further training. A follow-up audit is performed to determine if the technician has improved and whether any additional action is necessary.

In addition, when a Smog Check technician first becomes licensed or is changing employment, the BAR PR conducts a hands-on audit to determine if the technician possesses the necessary skills before allowing them access to the BAR-97 Emission Inspection System (EIS).

The DCA/BAR has established by regulation three license classifications: Intern, Basic Area and Advanced Emission Specialist Technician license. BAR requires individuals who want to be licensed as Basic or Advanced Smog Check technicians, to fulfill the prerequisites listed above and pass a multiple-choice examination.

Once a Smog Check technician meets the minimum requirements and passes the DCA/BAR's licensing examination, the technician is issued a license that is valid for two years.

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**Training Requirements**

License Title	Intern Technician	Basic Area Technician	Advanced Emission Specialist Technician
Initial Applicant Prerequisites:	None	1 Year Experience/Education in the Engine Performance Area	1 Year Experience/Education in the Engine Performance Area
Professional Certifications Required: Note: May substitute **BAR ASE Alternative Courses	None	National Institute of Automotive Service Excellence (ASE): A6, A8, L1	National Institute of Automotive Service Excellence (ASE): A6, A8, L1
*BAR Certified Training Courses Required:	Need Course # 1 (68 hrs.)	Need Course # 1 & 3 (84 hrs)	Need Course # 1, 2 & 3 (112 hrs.)
Written Exam:	No	Yes	Yes
License Term:	2 yrs.	2 yrs.	2 yrs.
Privileges:	May only perform repairs under supervision of EB or EA Technician	Authorized to inspect, diagnose, and repair vehicles only in Basic and Change-of-Ownership areas of the state	Authorized to inspect, diagnose, and repair vehicles in all areas of the state
License Renewal Criteria:	Valid 1 term only, Not renewable	Complete BAR's Update Course #3 (16 hrs.) and possess current ASE certifications (A6, A8, or L1); or pass ** BAR's ASE Alternative courses in those subject areas.	Complete BAR's Update Course #3 (16 hrs.) and possess current ASE certifications (A6, A8, or L1); or pass ** BAR's ASE Alternative courses in those subject areas.

**\*BAR Required Courses:**

1. BAR Basic Clean Air Car Course
2. BAR Advanced Clean Air Car Course
3. BAR License Update Course

**\*\*BAR ASE Alternatives Courses:**

Electrical/Electronics	A-6	20hrs.
Engine Performance	A-8	24hrs.
Advanced Engine Performance	L-1	28hrs.

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**§51.368 PUBLIC AWARENESS CAMPAIGN**

**SIP Requirements**

- 1. A plan for informing the public on an ongoing basis throughout the life of the I/M program of the air quality program, the requirements of federal and state law, the role of motor vehicles in the air quality problem, the need for and benefits of an inspection program, how to maintain a vehicle in a low-emission condition, how to find a qualified repair technician, and the requirements of the I/M program.*
- 2. Include a detailed consumer protection plan.*

**1. Consumer Outreach Program**

*A plan for informing the public on an ongoing basis throughout the life of the I/M program of the air quality program, the requirements of federal and state law, the role of motor vehicles in the air quality problem, the need for and benefits of an inspection program, how to maintain a vehicle in a low-emission condition, how to find a qualified repair technician, and the requirements of the I/M program.*

In 2005, the State and Consumer Services Agency (SCSA) and DCA/BAR introduced the Help California Breathe Easier media awareness campaign and website at [www.BreatheEasier.ca.gov](http://www.BreatheEasier.ca.gov). Breathe Easier is designed to promote consumer awareness about the adverse health effects of air pollution from automobiles, and to increase consumer participation in the Consumer Assistance Program's (CAP) repair assistance and vehicle retirement options. The Breathe Easier website links to DCA/BAR's web site to educate consumers about the Smog Check program and available consumer protection programs.

In 2007, DCA/BAR awarded a statewide media contract to Astone, Crocker, and Flanagan for \$4 million for the 2007-2008 fiscal year, with two one-year options to renew. Approximately 40% of the money will be spent on reinforcing the Drive Healthy campaign, about 30% will be spent on general Smog Check messages (e.g., directed vehicles and general compliance) and approximately 30% will be spent on general automotive repair issues. Of the monies spent on public relations and advertising, 65% will be spent on reaching general audiences and 35% will be spent on reaching ethnic and multicultural audiences.

In April 2007, DCA/BAR revised its Smog Check brochure, titled: "Some things you need to know about Smog Check in California." The brochure educates consumers with the top ten questions and answer regarding the Smog Check program and CAP.

DCA/BAR's toll free number (800) 952-5210 offers an automated service 24 hours a day for consumers to receive a list of test-only and Gold shield stations in their zip code area. During state business hours, consumers can also talk to a phone agent to receive station information.

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DCA/BAR's Web site includes information for consumers to:

1. Verify the license status of a Smog Check station or technician license.
2. Locate a licensed Smog Check station
3. View BAR publications and fact sheets
4. Access regulatory information relative to the Smog Check program.
5. Report a smoking vehicle through the Smoking Vehicle Program handled by the Air Resources Board. Motorists that are reported to this hotline are sent a letter informing them of the date and approximate location their vehicle was observed. Motorists are asked to voluntarily have their vehicle's emissions system inspected and any defects corrected.

16 CCR §3303.1 sets forth DCA/BAR's complaint disclosure policy.

**2. Consumer Protection**

*Include a detailed consumer protection plan*

Inspection and repair assistance, as well as general information, is provided for motorists and Smog Check stations by staff in DCA/BAR field offices, the toll-free consumer information center, and the referee toll-free scheduling center.

The BAR Website is available to consumers who have questions about Smog Check inspections. Consumers can access BAR publications, check the license status of a Smog Check station or Technician, or locate a Smog Check station in their area.

The DCA/BAR informs consumers about emission equipment warranties in a variety of ways. Brochures and information are distributed with the DMV renewal notices, at auto shows and fairs, and during the biennial Smog Checks. Special information is also printed on the vehicle inspection reports which are provided to consumers and which include inspection results. In addition, motorists participating in the random roadside inspections are given information on emissions warranties.

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**§51.369 IMPROVING REPAIR EFFECTIVENESS**

**SIP Requirements**

*Include a description of the technical assistance program to be implemented, a description of the procedures and criteria to be used in meeting the performance monitoring requirements of this section, and a description of the repair technician training resources available in the community.*

**Repair Effectiveness**

BAR mandates Smog Check technician candidates and technicians renewing their Smog Check technician license to complete update training. A different update training course is offered biennially. Update courses address inspection, diagnostic, and repair procedures relative to California's Smog Check Program. Each update course mandates a training manual, which is intended to be maintained by technicians as a reference manual.

BAR has developed a centralized computer database, referred to as the Vehicle Information Database (VID), which acquires analyzer data on a real-time basis. Data can be analyzed on a timely and frequent basis, in order to identify for enforcement those stations that are not performing inspections and/or repairs properly. This system identifies stations that appear to improperly repair or pass vehicles, or appear to issue certificates to vehicles outside program areas or to vehicles that are not actually inspected (i.e., cleanpiped).

BAR is committed to performing repair effectiveness evaluations as part of the Quality Assurance (QA) inspection program; refer to **§51.363 Quality Assurance** for more detail.

BAR is committed to providing public information as stated in **§51.368 Public Information and Consumer Protection**.

The Smog Check program also establishes a process that requires vehicles identified during their initial inspection as a gross polluter to get a certificate at a test-only or Gold Shield test-and-repair station. This provides a means for the state to verify and evaluate the station's original initial diagnosis and repair performance. Through the use of the BAR-97 EIS on-line computer and communication system, the DCA/BAR will track technician repair effectiveness, by analyzing data received. When the data indicate a possible problem, a covert audit will be requested to confirm whether or not the technician is correctly performing the proper emission inspections and/or repairs.

The Gold Shield Program allows a licensed Smog Check station, which meets higher performance standards, to provide a variety of inspection and repair services to California motorists. In addition to its regular Smog Check inspection and repair services, Gold Shield stations can issue certificates to gross polluters, perform state subsidized repairs (CAP), and perform an "after repairs" certification test on vehicles that were directed to have a Smog Check at a Test Only station and failed that test. In addition, Gold Shield stations are allowed to perform initial inspections and issue certificates of compliance to vehicles directed to test-only stations pursuant to a regulatory change adopted August 1, 2007.

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In order to maintain the Gold Shield status, stations must conduct a minimum of 10 successful emission repairs per calendar quarter. To qualify as a "successful emission repair" the vehicle must have failed the emissions portion of a Smog Check in official test mode or pre-test mode at any Smog Check station prior to the repair; the Smog Check station must have repaired the vehicle and entered repair data into the Vehicle Information Database (VID); and the vehicle must have been issued a certificate of compliance at any Smog Check station within ten (10) days following the repairs made by the applicant Smog Check station.

BAR also conducts roadside vehicle emissions surveys which provide a "real world" profile of emissions from California's passenger cars and light-duty trucks.

The study is statewide and entails inspection of as many as 20,000 vehicles per two year biennial cycle or a minimum 0.1 percent of the vehicles subject to inspection. **For more details, see §51.371 On Road Testing.**

**Legal Authority to Conduct Performance Monitoring and Insure Training**

HSC §44014	Smog check stations; licensing; smog check technicians; qualifications; test-only and repair-only stations; quality assurance contracts
HSC §44031.5	Smog check technicians; qualifications; training and retraining courses; loss of qualification
HSC §44045.6	Smog check technicians; training requirement; certification of facilities; remedial training or other disciplinary action; revocation or suspension
16 CCR §3340.28	Licenses and Qualifications for Technicians
16 CCR §3340.29	Licensing of Technicians
16 CCR §3340.31	Retraining of Licensed Technicians
16 CCR §3340.32	Standards for the Certification of Institutions Providing Retraining to Licensed Technicians or Prerequisite Training to Those Seeking to Become Licensed Technicians
16 CCR §3340.33	Standards for Certification of Basic and Advanced Instructors Providing Retraining to Intern, Basic Area and Advanced Emission Specialist Licensed Technicians or Prerequisite Training to Those Seeking to Become Intern Basic Area, or Advanced Emission Specialist Licensed Technicians

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**§51.370 COMPLIANCE WITH RECALL NOTICES**

**SIP Requirements**

*Describe the procedures used to incorporate the vehicle lists provided in paragraph (a)(1) of this section into the inspection or registration database, the quality control methods used to insure that recall repairs are properly documented and tracked, and the method (inspection failure or registration denial) used to enforce the recall requirements.*

**Recall Process**

California has had a registration enforcement emissions recall process in place since 1991. Emissions recalls must be performed and a notice of completion issued to the owner by an authorized repair facility must be provided to the DMV, before a vehicle's registration can be renewed. This is a process operated by the Air Resources Board (ARB) and the Department of Motor Vehicles (DMV), as a separate program from the Smog Check program. This process may require repairs be performed a year prior to a vehicle's next scheduled biennial Smog Check inspection.

The BAR-97 emissions analyzers have emissions recall information received from DMV that is displayed for the vehicle being tested. The information is referenced to the model year, make, model, engine size, VIN, etc., and is printed on the Vehicle Inspection Report (VIR). If a recall is outstanding during the Smog Check inspection, technicians advise the consumer that DMV requires a certificate of completion as a condition of registration renewal.

**Legal Authority for Recalls**

- |            |   |
|------------|---|
| HSC §43204 | Manufacturers' warranty on vehicles or engines manufactured before 1990 model-year; useful life |
| HSC §44015 | Certificate of compliance; issuance criteria; period of validity; odometer readings             |

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**§51.371 ON-ROAD TESTING**

**SIP Requirements**

- 1. A detailed description of the on-road testing program, including the types of testing, test limits and criteria, the number of vehicles (the percentage of the fleet) to be tested, the number of employees to be dedicated to the on-road testing effort, the methods for collection, analyzing, utilizing, and reporting the results of on-road testing and, the portion of the program budget to be dedicated to on-road testing.*
- 2. Technical support for the claimed additional emission reductions.*
- 3. Include the legal authority necessary to implement the on-road testing program, including the authority to enforce off-cycle inspection and repair requirements (where applicable).*

**1. Roadside Emissions Survey**

*A detailed description of the on-road testing program, including the types of testing, test limits and criteria, the number of vehicles (the percentage of the fleet) to be tested, the number of employees to be dedicated to the on-road testing effort, the methods for collection, analyzing, utilizing, and reporting the results of on-road testing and, the portion of the program budget to be dedicated to on-road testing.*

**Overview:**

DCA/BAR conducts the state's roadside vehicle emissions survey. The survey and project are referred to as "Roadsides." The goal is to provide a "real world" profile of emissions from California's passenger cars and light-duty trucks. The information collected is used to evaluate California's Smog Check program, by determining statewide emissions levels and monitoring those levels over time.

Inspections are conducted statewide on a stratified random survey of vehicles. The goal is to inspect as many as 20,000 vehicles per two year biennial cycle or a minimum 0.1 percent of the vehicles subject to inspection.

The inspection sites are separated by Zip Codes and are currently selected at random in five regions. Those regions are Sacramento, Central Valley, South Coast, San Diego, and Ventura areas. Roadside inspection teams are comprised of members of BAR and the California Highway Patrol (CHP). These teams focus on Enhanced Smog Check regions. Once the Enhanced regions are complete, inspections may be performed in the Basic Smog Check regions.

**Types of Testing:**

Roadside inspection teams use a portable BAR 97 EIS, and dynamometer test equipment. The dynamometer analytical trains are capable of performing acceleration simulation mode (ASM) 50/15, 25/25, two speed idle (TSI), high idle (2500 RPM) and free idle tests. The TSI tests are run independently of the ASM tests. Roadside BAR 97 EIS software does not incorporate the fast-pass protocol.

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In addition to the automated emissions tests, Roadside inspection teams perform under-hood visual inspections and functional checks of the gas cap, Malfunction Indicator Lamp (MIL) and On-Board Diagnostics II (OBD II) system. Roadside do not complete functional ignition timing and exhaust gas recirculation inspections due to time constraints, and the special tools and manuals required.

**Test Limits and Criteria:**

Depending on the vehicle configuration, the vehicle may receive an ASM or TSI test. The ASM tests last a full duration of 90 seconds for the 50/15 and 60 seconds for the 25/25. Both test pass/fail criteria are determined during the last 10 seconds of testing for each mode and are of full duration.

Roadside employs a stratified random sampling method. BAR has developed a Roadside Pullover Software (RPS) program that allows Roadside to randomly select a vehicle. Roadside inspects and test model years between 1976 and the present. The vehicle fleet is broken down into groups based on the model-year and the technology at the time. For example, during the years 1981-1986 most vehicles had feedback carburetors. This subsection of the fleet has a certain population and makes up a percentage of the vehicle fleet. The stratification program is adjusted so that Roadside does not over-sample any one of these groups. As a vehicle is directed into the test lane the model-year is input into the RPS program. A random number generator produces a number and if the number is the same or less than the percent assigned to that group the vehicle is selected for testing. This ensures the sample remains random.

**Number of Vehicles:**

The goal of roadside is to inspect 20,000 vehicles per biennial cycle.

**Number of Dedicated Employees:**

The Roadside program currently has eleven authorized positions, operating as two inspection teams statewide.

**Data Collection, Analyses, Use, Reporting:**

Refer to §51.365 Data Collection and §51.366 Data Analysis and Reporting regarding data collection and reporting.

**2. Technical Data**

*Technical support for the claimed additional emission reductions*

Refer to §51.353 Network Type and Program Evaluation for a description of how the roadside data has been used to evaluate the Smog Check program.

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**3. Legal Authority for On-Road Testing**

*Include the legal authority necessary to implement the on-road testing program, including the authority to enforce off-cycle inspection and repair requirements (where applicable).*

HSC §44024.5(a)	New technologies; incorporation into inspection program
HSC §44081	Gross polluters; on-road detection procedures; program for out-of-cycle testing and repair; roadside auditing; repair cost limits
VC §2814	Passenger vehicle inspection

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**ACRONYMS**

ANI	Automatic Number Identification
APA	Administrative Procedure Act
AQE	Air Quality Engineer
AQR	Air Quality Representative
ARB	Air Resources Board
ARD	Automotive Repair Dealer (Registration)
ASE	National Institute for Automotive Service Excellence
ASM	Acceleration Simulation Mode
B & P	Business & Professions Code
BAR	Bureau of Automotive Repair
CACC	Clean Air Car Course
CAP	Consumer Assistance Program
CCR	California Code of Regulations
CHP	California Highway Patrol
CID	Cubic Inch Displacement
CO	Carbon Monoxide
DCA	Department of Consumer Affairs
DCA/BAR	Department of Consumer Affairs/Bureau of Automotive Repair
DMV	Department of Motor Vehicles
EA	Advanced Emission Specialist Technician
EB	Basic Area Technician
EIS	Emission Inspection System
ET	Electronic Transmission
FPG	Federal Poverty Guidelines
GVWR	Gross Vehicle Weight Rating
HC	Hydrocarbons
HEP	High Emitter Profile
HPRRA	High Polluter Repair or Removal Account
HSC	Health & Safety Code
IMRC	Inspection/Maintenance Review Committee
O2	Oxygen
OBD11	On Board Diagnostics 2nd Generation
PR	Program Representatives
QA	Quality Assurance
RPS	Roadside Pullover Software

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SAQE	Senior Air Quality Engineer
SCSA	State and Consumer Services Agency
SIP	State Implementation Plan
SME	Subject Matter Expert
TAS	Test Analyzer System
TSB	Technical Service Bulletin
TSI	Two Speed Idle
USEPA	United States Environmental Protection Agency
VC	Vehicle Code
VID	Vehicle Information Database
VIN	Vehicle Identification Number
VIR	Vehicle Inspection Report
VIRF	Vehicle Inspection and Repair Fund

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**ATTACHMENTS**

1. Smog Check Program Laws and Regulations
2. Map of Program Areas
3. List of Zip Codes by Program Area
4. Enhanced I/M Performance Modeling Files
5. Basic I/M Performance Modeling Files
6. Fund Condition for VIRF and HPRRA
7. Vehicle Model Years Subject to Smog Check
8. Estimate of California Fleet Subject to Smog Check Program in 2008
9. DMV's Handbook of Vehicle Registration Procedures, Chapter 21
10. BAR-97 Emissions Inspection System (EIS) Specification
11. Draft Smog Check Inspection Manual
12. Low Pressure Fuel Evaporative Tester (LPFET) Specification