

**TITLE 16**  
**BUREAU OF AUTOMOTIVE REPAIR**

**NOTICE OF PROPOSED REGULATORY ACTION AND PUBLIC HEARING  
CONCERNING**

**Smog Check Inspection Procedures**  
SPECIFICALLY

**Inspection Equipment, Updated Reference Documents, and  
Inspection Procedures and Standards**

**NOTICE IS HEREBY GIVEN** that the Department of Consumer Affairs/Bureau of Automotive Repair (hereinafter “Bureau” or “BAR”) is proposing to take the action described in the Informative Digest. Any person interested may present statements or arguments orally or in writing relevant to the action proposed at hearings to be held at the following locations on the following dates:

**NORTHERN CALIFORNIA**

Tuesday, February 19, 2013 at 10:00am  
Bureau of Automotive Repair  
10949 North Mather Blvd  
Rancho Cordova, CA 95670

**SOUTHERN CALIFORNIA**

Tuesday, February 19, 2013 at 10:00am  
Live streamed to Northern California  
Bureau of Automotive Repair  
1180 Durfee Ave., Suite 120  
South El Monte, CA 91733

Written comments, including those sent by mail, facsimile, or e-mail to the addresses listed under Contact Person in this Notice, must be **received by the Bureau at its office no later than 5:00 p.m. on Tuesday, February 19, 2013**, or must be received by the Bureau at one of the above referenced hearings. **Comments sent to persons or addresses other than those specified under Contact Person, or received after the date and time specified above, regardless of the manner of transmission, will be included in the record of this proposed regulatory action, but will not be summarized or responded to.** The Bureau, upon its own motion or at the request of any interested party, may thereafter formally adopt the proposals substantially as described below or may modify such proposals if such modifications are sufficiently related to the original text. With the exception of technical or grammatical changes, the full text of any modified proposal will be available for 15 days prior to its adoption from the

person designated in this Notice as contact person and will be mailed to those persons who submit oral or written testimony related to this proposal or who have requested notification of any changes to the proposal.

### **AUTHORITY AND REFERENCE:**

Pursuant to the authority vested by Section 9882 of the Business and Professions Code, and to implement, interpret or make specific Sections 44001.5, 44002, 44003, 44012.1, 44013, 44036, 44037.1, 44072.10, 44091 and 44095 of the Health and Safety Code, the Bureau is proposing to adopt the following changes to Chapter 1, Division 33, Title 16, California Code of Regulations.

### **INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW**

#### **INTRODUCTION:**

BAR is the state agency charged with administration and implementation of the Smog Check Program (Program). The Program is designed to reduce air pollution from mobile sources, such as passenger vehicles and trucks, by requiring that these vehicles meet specific inspection standards. Currently, Smog Check stations rely on the BAR-97 EIS to perform either a Two-Speed Idle (TSI) or Acceleration Simulation Mode (ASM) test depending on the program area. For instance, vehicles registered in urbanized areas or Enhanced Areas, will receive an ASM test, while vehicles in rural areas or Basic Areas receive a TSI test.

#### **BACKGROUND:**

Assembly Bill (AB) 2289 (Eng, Chapter 258, Statutes of 2010) requires BAR to implement a new protocol for testing 2000 and newer model-year vehicles. This new test relies primarily on a vehicle's On-Board Diagnostics (OBD) system. OBD systems are designed to identify when a vehicle's computer-controlled emissions system and/or component is malfunctioning and is operating outside of the vehicle manufacturer's specifications. The current BAR-97 EIS utilizes OBD test equipment; however, this equipment is rudimentary and is not capable of communicating complete OBD information for all vehicles. As a result, BAR determined it best to develop equipment specifications for new test equipment, referred to as the Data Acquisition Device (DAD), which is a component of the OBD Inspection System (OIS). Further, AB 2289 provided BAR the ability to establish alternate testing procedures, in addition to the existing ASM, TSI, and the proposed OBD-focused test.

These changes are intended to provide for additional emissions reductions, quicker and potentially less costly Smog Check inspections for consumers, and will help to lower Smog Check station operating costs associated with the Smog Check equipment.

#### **Smog Check Equipment**

The current BAR-97 EIS lacks functionality and flexibility to easily incorporate new inspection procedures. The need for new inspection equipment is further necessitated as replacement parts for the BAR-97 EIS are scarce and its integrated OBD scan tool does not read or gather data on

vehicles with newer OBD technology. Because the existing tailpipe inspection is being eliminated for most 2000 and newer model-year vehicles, BAR must rely more heavily on the vehicle's OBD system to determine if a vehicle has failing emissions control systems. In order to collect this vital OBD information, BAR determined that it was necessary to develop and implement new OBD inspection equipment. Additionally, AB 2289 permits the use of real-time data to prevent a vehicle from passing an inspection in cases where vehicle information does not match known data for the vehicle, mismatched information, or other irregularities – the new OIS will incorporate this functionality.

This proposed regulatory action requires most gasoline-powered vehicles model-year 2000 and newer and diesel-powered vehicles model-year 1998 and newer to have an OBD-focused inspection on the OIS. The OBD-focused inspection will also accommodate hybrid-powered vehicle inspections, which cannot currently receive an inspection due to testing incompatibilities with the BAR-97 EIS. Vehicle model-years 1999 and older will continue to receive their Smog Check inspection exclusively on the existing BAR-97 EIS.

Additionally, this proposed regulation departs from the current practice of requiring Smog Check stations to purchase all available equipment, regardless of the vehicles being inspected or repaired at a particular station. Only STAR certified stations will be required to have all equipment including, but not limited to, the BAR-97 EIS, the Low Pressure Fuel Evaporative Tester (LPFET), and the OIS. This requirement for STAR stations to have all equipment is necessary because BAR directs a portion of the vehicle fleet to have a Smog Check inspection at STAR certified stations. Vehicles directed for an inspection have been identified by BAR as having a higher likelihood of failing their Smog Check inspection. These vehicles may require an OBD-focused, tailpipe emissions inspection, or a combination of both. As a result, STAR certified stations need to have all of the inspection equipment used in the Smog Check Program.

Non-STAR stations may continue to use the BAR-97 EIS, purchase the OIS, or use both. Additionally, these stations will have the flexibility to choose which vehicles they wish to inspect. For instance, a station may choose to inspect 1999 and older model-year vehicles with a BAR-97 EIS, inspect 2000 and newer model-year vehicles with the OIS, or a combination of both.

As part of this project, BAR developed the BAR OBD Inspection System – Data Acquisition Device Specification, dated October 22, 2012. This document describes the equipment standards for the Data Acquisition Device (DAD), which is a component of the OIS. Equipment manufacturers must build the DAD to meet these specifications. Any device that meets the performance specifications will then be certified by BAR for use in the Smog Check Program. It is anticipated that the OIS equipment will be available for use starting in 2013.

### Smog Check Inspection Procedures

AB 2289, specifically, Health and Safety Code (H&S) section 44012 provided BAR the authority to develop a process for inspecting vehicles that present problematic or unusual circumstances. Until the passage of AB 2289, BAR did not have flexibility in statute and could not prescribe alternative inspection procedures in regulation for vehicles with testing

incompatibilities. Experience shows that a single test process, while convenient for motorists and BAR enforcement efforts, cannot be applied to over 26,000 vehicle configurations. Flexibility allows BAR to assign alternate tests for vehicles with OBD systems that exhibit operational problems and for vehicles with original equipment manufacturer configurations which are incompatible with the ASM or TSI test. Alternative testing procedures are necessary to capture polluting vehicles that would otherwise be exempted from inspection due to their incompatibility with the inspection equipment. Examples of vehicles with systems that cannot be disengaged to perform an ASM test include: All-Wheel Drive (AWD) vehicles, hybrid powered vehicles, and traction control vehicles.

This regulatory package establishes alternative inspection procedures for hybrid-powered vehicles. Hybrid-powered vehicles have always been subject to the Smog Check Program since they have an internal combustion engine with emissions control systems. However, their configuration (e.g., gasoline engine starting under varying conditions) prohibits them from being inspected with tailpipe emissions measurement equipment. As a result, this proposal allows all 2000 and newer model-year hybrid-powered vehicles to receive an OBD-focused inspection solely on the OIS. BAR estimates that 271,246 hybrid-powered vehicles<sup>1</sup> will be subject to the Smog Check Program annually.

#### Smog Check Inspection Standards

This regulation package also revises the OBD standards to better align with United States Environment Protection Agency guidance<sup>2</sup>. This revision lowers the maximum number of unset readiness monitors an OBD system can be reporting and still pass an inspection, based on specific model-year ranges.

At present, 1996 through 2000 model-year gasoline-powered vehicles can have up to two readiness monitors set and still pass a Smog Check inspection. Meanwhile, 2001 and newer model-year gasoline-powered vehicles cannot have more than one readiness monitor. Under this proposal, 1996 through 1999 model-year vehicles can have no more than one incomplete readiness monitor reporting, while 2000 and newer model-year vehicles with any incomplete monitors, excluding the evaporative system monitor, will fail an inspection.

Originally, diesel-powered vehicles had to meet the same OBD readiness monitor standards as gasoline-powered vehicles. Since implementing diesel Smog Check inspection procedures in 2010, BAR has gathered data regarding the number and types of monitors that diesel-powered vehicles typically report. BAR determined that the current OBD monitor standard was too lenient and additional air quality benefits could be achieved by reducing the number of allowable readiness monitors for diesel-powered vehicles. For instance, 1998 through 2006 model-year diesel vehicles only operate on a few readiness monitors as compared to gasoline-powered vehicles which use more than 11 monitors. Further, 2007 and newer model-year diesel-powered vehicles cannot have any unset readiness monitors at the time of the inspection, excluding the particulate filter monitor. Starting in 2007, diesel vehicles introduced the

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<sup>1</sup> It is estimated that approximately 271,246 (159,356 biennial inspections and 111,890 change of ownership inspections) hybrid-powered vehicles would require a Smog Check inspection in the calendar year 2013.

<sup>2</sup> <http://www.epa.gov/otaq/regs/im/obd/r01015.pdf>

particulate filter and monitors which can take a long time to complete, similar to the gasoline powered vehicle evaporative system monitor.

At present, all 1976 through 1999 model-year vehicles receive a fuel cap integrity test. This regulatory action limits the use of the fuel cap integrity test to 1976 through 1995 model-year vehicles. This change was made to align with the applicability of the Low Pressure Fuel Evaporative Test, which is performed on 1976 through 1995 model-year vehicles. BAR does not anticipate this modification will result in a significant change to the overall Smog Check failure rate as most 1996 and newer model-year vehicles already electronically monitor the fuel cap through their OBD system.

Additionally, BAR requires an ignition timing test on all vehicles equipped with adjustable timing. However, vehicles that do not have adjustable timing (i.e., some newer model-year vehicles) do not require this test. As a result, BAR has limited the functional ignition timing test to 1976 through 1995 model-year vehicles. BAR does not anticipate this modification will result in lost emissions benefits as 1996 and newer model-year vehicles already electronically monitor engine ignition timing through their OBD system.

BAR data indicates that the overall initial test failure rate for 1996 and newer gasoline-powered vehicles could rise by 4.6% due to the vehicle's OBD systems needing to complete more emissions control system fault detection diagnostics, while accounting for the removal of the tailpipe test for 2000 and newer model year vehicles. However, based on the implementation of prior OBD changes, the expected failure rate may be 50% less due to inspector and consumer vehicle preparation prior to a Smog Check inspection. As a result, BAR anticipates a 2.3% increase to the failure rate or an additional 183,159 Smog Check failures annually.

Additionally, BAR data indicates that the diesel-powered vehicle overall failure rate could rise by 6.4% for 1998 and newer model year vehicles. As with the gasoline powered vehicles, the actual failure rate may be 50% less. As a result, BAR anticipates a 3.2% increase to the failure rate or an additional 5,969 failures annually.

### Smog Check Manual

BAR has provided Smog Check technicians and stations with an inspection procedures manual since the inception of the Program in 1984. The manual has served both BAR and the Smog Check industry and is the Program's primary reference source for conducting proper Smog Check inspections.

At present, Smog Check inspection procedures and equipment are described in both the regulation text and the current Smog Check Inspection Procedures Manual. Because requirements are split into multiple sources, BAR determined that it would be more clear and concise to list all of these requirements in a single source as a convenience to the end user, Smog Check stations, inspectors, and technicians. Further, recent changes, including the planned addition of the OIS into the Smog Check Program necessitate the need to create a new manual that more appropriately represents the current equipment, license classifications, and flexible testing. The new Smog Check Manual relies on simple charts to explain which tests are

applicable to specific model-year vehicles or vehicle types, as well as to explain what equipment stations are required to have.

As part of updating the manual, BAR eliminated the Visible Smoke Test Failure Consumer Information Sheet. This document is redundant as BAR already requires Smog Check stations to indicate, on the Vehicle Inspection Report (VIR) and the consumer's invoice, if the vehicle has failed the Visible Smoke Test.

**CURRENT REGULATION:**

*Existing regulation in the California Code of Regulations, Title 16, Division 33, Chapter 1, Article 5.5, is summarized as follows:*

1. Article 5.5, Section 3340.1 specifies definitions used in the Smog Check Program.
2. Article 5.5, Section 3340.16 specifies Test-Only station requirements and conflict of interest rules for consumer referrals.
3. Article 5.5, Section 3340.16.4 specifies Repair-Only station requirements and conflict of interest rules for consumer referrals.
4. Article 5.5, Section 3340.16.5 specifies Test and Repair station requirements and conflict of interest rules for consumer referrals.
5. Article 5.5, Section 3340.17 specifies the Smog Check test equipment, maintenance, and calibration requirements. Additionally, how the Smog Check inspection test results are electronically transmitted to BAR.
6. Article 5.5, Section 3340.17.1 specifies the process for decertifying Smog Check equipment manufacturers, including, notification process and ability for Manufacturers to request a hearing.
7. Article 5.5, Section 3340.17.2 specifies the ability for an equipment manufacturer to request an informal hearing.
8. Article 5.5, Section 3340.18 specifies the certification criteria for the BAR-97 EIS calibration gases and blenders of gases.
9. Article 5.5, Section 3340.42 specifies the Smog Check inspections methods for certain model-year vehicles.
10. Article 5.5, Section 3340.42.2 specifies the OBD test methods and standards for certain model-year vehicles.
11. Article 5.5, Section 3340.45 incorporates by reference the Smog Check Manual in regulation.

12. Article 11, Section 3394.5 Amended to allow vehicles inspected with new OBD Inspection Equipment (OIS) to continue to participate in the Consumer Assistance Program (CAP).

**EFFECT OF REGULATORY ACTION:**

The Bureau of Automotive Repair (BAR) is proposing the following amendments to existing regulations:

- I. **Inspection Equipment:** Incorporate the new OBD Inspection System (OIS) equipment that Smog Check stations may choose to purchase into regulation and the *Smog Check Manual*, dated 2013.
- II. **Updated Reference Documents:** Incorporate by reference the *BAR OBD Inspection System OBD Data Acquisition Device Specification*, dated October 22, 2012, into regulation. This proposed action will establish equipment standards for the Data Acquisition Device (DAD) portion of the OIS. Additionally, BAR incorporated by reference an updated version of the *Low Pressure Fuel Evaporative Tester (LPFET) Specifications*, dated January 2012.

BAR originally created the *Smog Check Inspection Procedures Manual* to help act as a guide for performing proper inspections. This document has been substantially changed to capture new inspection procedures for using the OIS, to specify new equipment requirements, to incorporate existing equipment requirements that were previously codified in regulation, and to clarify required tests for vehicles subject to the Smog Check Program. This regulatory action establishes the *Smog Check Manual*, dated 2013, which details both current and new inspection procedures and required equipment for both inspection and repair stations.

Specifications and certification procedures for calibration and audit gases were previously incorporated by reference in Title 16 of the California Code of Regulations (CCR) section 3340.18 in January 1990. BAR revised the specifications in 1997 when a new protocol for inspecting vehicles was incorporated into the Smog Check Program. The document was revised again in 2004 to address proper gas blending and storage procedures necessary to prevent a calibration gas contaminant that could affect calibration accuracy. The document was further revised to reduce the allowable level of CO<sub>2</sub> in the zero air gas blend from 400 parts per million (ppm) to 40 ppm. This improvement is intended to make it more difficult to use contaminated or counterfeit zero air to

calibrate emissions measurement equipment. All of the gas blend manufacturers meet this specification. Finally, this regulatory action revises the document to reduce the allowable level of CO<sub>2</sub> in the zero air gas blend. This proposed change seeks to incorporate by reference the changes made to the document in 1997, 2004 and 2012. The revised document *Specifications and Accreditation Procedures for Calibration and Audit Gases Used in the California Emissions I/M Program*, dated January 2012 will be incorporated into regulation.

- III. **Inspection Procedures and Standards:** Amend the On-Board Diagnostics (OBD) inspection procedures to require an OBD test in lieu of a tailpipe test on most 2000 and newer model-year vehicles. In addition, this proposed regulatory action allows for alternative testing procedures for vehicles randomly selected for the purpose of identifying operational problems, 1996 and newer model-year vehicles with OBD systems that exhibit operational problems, and vehicles with physical incompatibilities with any Smog Check inspection equipment. Further, BAR deleted the visual and functional tests from the regulation text, as they have been moved into the *Smog Check Manual*, which is incorporated by reference.

Amend the test methods and standards for the OBD inspection to better align with the United States Environmental Protection Agency (USEPA) guidance for performing an OBD inspection. This modification establishes new inspection standards for gasoline-powered vehicle model-years 2000 and newer and for diesel-powered vehicle model-year 1998 and newer.

The proposed action will make the following changes to existing regulation:

**1. Amend Section 3340.1 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Add definition for “BAR-97 Emissions Inspection System or EIS.”

This term is necessary to define because this Smog Check equipment is discussed throughout this proposed regulation package. This definition replaced the deleted definition of Emissions inspection equipment (EIS) to better differentiate between new inspection equipment referred to as the OBD Inspection System (OIS) and the existing BAR-97 EIS.

- b. Delete definition for “Emissions inspection system or EIS.”

This term is unnecessary, as BAR created a new, more recognizable definition in regulation – “BAR-97 Emissions Inspection System or EIS.”

- c. Amend the definition of “Gear Shift Incident.”

This definition was revised as the “Smog Check Inspection Procedures Manual” has been retitled as the “Smog Check Manual.” This conforming change has been made throughout this proposed regulation.

- d. Add definition for “OBD Inspection System or OIS.”

This definition is necessary to define because the OIS equipment will be used to by Smog Check technicians in performing Smog Check inspections on 2000 model-year and newer vehicles.

- e. Amend the definition of “Vehicle Inspection Report.”

This definition was revised to reference the new OIS equipment. In addition, minor conforming changes have been made to incorporate “EIS,” which is an abbreviation for emission inspection system.

**2. Amend Section 3340.16 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Remove subsections (a) and (b) regarding equipment required for a Smog Check Test-Only stations.

The equipment requirements for all Smog Check station types have been added to the proposed Smog Check Manual in a simple table format. This revision eliminates redundancy between regulation and the proposed Smog Check Manual. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source relating to the Smog Check equipment and inspection procedures.

Currently, some of the Smog Check equipment and inspection procedures appear in both regulation and the proposed Smog Check Manual. For example, some of the Smog Check equipment that is being moved from regulation to the Smog Check Manual for a Test-Only station includes the BAR-97 EIS, ignition timing light, hand vacuum pump, vacuum gauge, basic hand tools, emission control application guide, bureau manuals and bulletins, Low Pressure Fuel Evaporative Tester, and tire pressure gauge.

- b. Add subsection (a) to read as follows, “A smog check test-only station shall meet the equipment requirements as provided in the Smog Check Manual referenced in section 3340.45.”

The equipment requirements for all Smog Check station types, including Test-Only stations, have been added to the proposed Smog Check Manual in a simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source regarding Smog Check equipment and inspection procedures. Currently, some of the Smog Check equipment and inspection procedures appear in both regulation and the proposed Smog Check Manual. This revision eliminates redundancy between regulation and the proposed updated Smog Check Manual.

This amendment renumbers subsection (c) to (b), subsection (d) to (c), subsection (e) to (d), subsection (f) to (e), subsection (g) to (f), and subsection (h) to (g).

- c. Amend subsection (f) by deleting “smog check.”

This amendment is necessary to clarify that a Smog Check Test-Only station may not refer a vehicle to a provider of repair service in which the Test-Only station has a financial interest.

- d. Amend subparagraph (1) of subsection (f) by deleting “stations” and adding “automotive repair dealer.”

This amendment clarifies what ownership situations will create a financial interest. Because the term “station” is synonymous with a Smog Check station BAR must replace the term with “automotive repair dealer” as it is the generic license classification that applies to all Smog Check stations and repair facilities.

- e. Amend subsection (h) by deleting “a station” and “station” and by adding “an automotive repair dealer” and “automotive repair dealer.”

This amendment clarifies that an applicant for a Smog Check Test-Only station shall not qualify if the same party owns an automotive repair dealer that provides repair services and is located adjacent to, or in the same business park, strip mall, or industrial complex.

- 3. Amend Section 3340.16.4 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend subsection (a) by deleting “operating in any program area” and add “meet the requirements for equipment and materials as specified in the Smog Check Manual referenced in section 3340.45.” Additionally, remove the remaining text in subsection (a) and paragraphs (1) – (15).

The equipment requirements for all Smog Check station types including repair-only stations have been added to the proposed Smog Check Manual in a simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source regarding Smog Check equipment. Currently, some of the Smog Check equipment appears in both regulation and in the proposed Smog Check Manual. This revision eliminates redundancy between regulation and the proposed updated Smog Check Manual.

Currently, some of the smog check equipment appears in both regulation and the proposed Smog Check Manual. The Smog Check equipment that is proposed to be removed from regulation and required in the Smog Check Manual for Repair-Only stations includes: engine diagnosis and repair tools; ignition analyzer; compression tester; tachometer, fuel pressure gauge; propane enrichment kit; ammeter; volt/ohmmeter; basic hand tools; OBD scan tool; diagnosis and repair information; electronic component location manuals; automotive computer diagnostic and repair manuals; bureau manuals and bulletins; an electronic device capable of graphically displaying any electronic signal; and tire pressure gauge.

- b. Remove subsection (b) regarding equipment required for a Smog Check Repair-Only station.

Subsection (b) was moved to the proposed updated Smog Check Manual. This section allows stations only performing diesel vehicle repairs to have only the equipment needed for diesel repairs.

- c. Remove subsection (c) regarding diagnostic and repair equipment which is required for a Smog Check Repair-Only station.

Subsection (c) was also moved to the proposed updated Smog Check Manual. This section required all the equipment required to be calibrated or adjusted in accordance with the manufacturer’s instructions.

- d. Amend subsection (d) by adding “the station does not have the necessary equipment, tools, personnel, diagnostic and reference materials to repair that vehicle. The station may reject a vehicle if, as a matter of policy, the station:”. Additionally, delete “any of the

following conditions apply” and subsection (d) subparagraph (1) in its entirety. Other minor formatting, grammatical and editorial changes have been made to incorporate these modifications.

This amendment renumbers subsection (d) to (b) and subsection (e) to (c). Additionally, renumber subsection (b)(2) to (b)(1) and (b)(3) to (b)(2).

- e. Amend subsection (e) by deleting “particular station for a” and “station” and “stations.” Add “automotive repair dealer” in multiple places.

These changes are necessary to remove ambiguity regarding business referrals from regulation.

**4. Amend Section 3340.16.5 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend subsection (a) by deleting “operating in any program area” and “have the equipment and materials specified by, and conform to the requirements of, subsection (a) of section 3340.16 and subsection (a) of section 3340.16.4 of this article.” Add the following text “meet the equipment requirements for equipment and materials as specified in the Smog Check Manual referenced in section 3340.45.”

The equipment requirements for all Smog Check station types including Test-and-Repair stations have been added to the proposed Smog Check Manual in a simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source regarding Smog Check equipment and inspection procedures. Currently, some of the Smog Check equipment and inspection procedures appear in both regulation and the proposed Smog Check Manual. This revision eliminates redundancy between regulation and the proposed Smog Check Manual.

- b. Remove subsection (b) in its entirety.

This revision eliminates redundancy between regulation and the proposed updated Smog Check Manual. The equipment requirements for all Smog Check station types have been added to the proposed Smog Check Manual in simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single, reference source regarding Smog Check equipment.

Currently, some of the Smog Check equipment appears in both regulation and the proposed Smog Check Manual. The Smog Check equipment that is proposed to be

moved from the regulation text to the Smog Check Manual for a Test-and-Repair station includes the equipment and material specified in subsection (a) of section 3340.16 and subsection (a) of section 3340.16.4, the BAR-97 EIS, and a tire pressure gauge.

This amendment renumbers subsection (c) to (b), subsection (d) to (c), subsection (e) to (d), and subsection (f) to (e).

**5. Amend Section 3340.17 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Remove subsection (a) in its entirety.

This revision eliminates redundancy between regulation and the proposed updated Smog Check Manual. The equipment requirements for all Smog Check station types have been added to the proposed Smog Check Manual in simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source regarding Smog Check equipment.

- b. Amend subsection (b) by removing “Each smog check test-only and test-and-repair station operating in an enhanced area shall have a”. Add “The EIS shall be calibrated only with bureau approved gases that are certified in accordance with section 3340.18 of this article.” Other minor formatting, grammatical and editorial changes have been made to incorporate these modifications.

This revision eliminates redundancy between regulation and the proposed updated Smog Check Manual. The equipment requirements for all Smog Check station types have been added to the proposed Smog Check Manual in simple table format. The proposed Smog Check Manual will provide Smog Check technicians and station owners a single reference source regarding Smog Check equipment.

BAR moved text in subsection (e) regarding calibration gases to subsection (b) for improved clarity.

This amendment renumbers subsection (b) to subsection (a).

- c. Add new subsection (b) with the following text: “The OBD data acquisition device shall meet the specifications contained in the BAR OBD Inspection System Data Acquisition Device Specification dated, October 22, 2012, which is hereby incorporated by reference.”

This new subsection specifies requirements for the new DAD. These requirements were developed to meet the requirements of H&S section 44012. Additionally, H&S section 44036 requires BAR to certify Smog Check inspection equipment for use in the Smog Check Program. As such, BAR developed specifications for the new DAD equipment.

- d. Add new subsection (c) with the following text “Vehicle data and test results from the OBD Inspection System (OIS) shall be transmitted to the Bureau’s centralized database.”

This subsection specifies how the OIS communicates with BAR’s Vehicle Information Database (VID). These requirements to be connected to the VID were moved from subsection (a), and are not new requirements. The OIS system connection was added to the current EIS connection requirements.

- e. Remove subsection (c) in its entirety.

This subsection (c) was moved to the Smog Check Manual because it is easier for Smog Check technicians and stations to have a single source document for all Smog Check Program equipment.

- f. Remove subsection (d) in its entirety.

This subsection (d) was moved to the Smog Check Manual because it is easier for Smog Check technicians and station to have a single source document for all Smog Check Program equipment. Additionally, similar requirements for the new OIS equipment were added to the Smog Check Manual.

- g. Delete subsection (e) in its entirety.

The text of subsection (e) was moved to subsection (a). By moving this subsection all of the equipment calibration requirements will be in one section which provides improved clarity and conciseness.

- h. Amend subsection (f) regarding access to protected areas of the EIS, LPFET and OIS equipment.

Minor formatting, grammatical and editorial changes have been made to help deter tampering of the EIS, LPFET and OIS.

This amendment renumbers subsection (f) to (d).

- i. Add new subsection (e) regarding LPFET equipment.

This subsection (e) was moved from section 3340.16 (a)(9). This change improves clarity and provides affected individuals with concise regulations

- j. Amend subsection (g) regarding disabling EIS, LPFET and OIS communication to the VID that do not comply with bureau requirements.

This subsection was amended to apply the ability to lock out equipment that is not compliant with hardware and software requirements from performing inspections to the EIS and to the new OIS and existing LPFET equipment. Other minor formatting, grammatical and editorial changes have been made to incorporate these modifications.

This amendment renumbers subsection (g) to (f).

- k. Remove subsection (h) in its entirety.

These requirements have been moved into the Smog Check Manual because as it improves clarity and conciseness of the regulations. Smog Check technicians and stations will now have a single source for all Smog Check equipment. Additionally, similar requirements for the new OIS equipment have been added to the Smog Check Manual.

**6. Add Article 3340.17.1 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Add new Article to read as follows:

Article § 3340.17.1. Decertification of Equipment Manufactures

- b. Add sections (a) – (e) to regulation concerning the decertification of Smog Check equipment manufacturers.

This Article describes the process for decertifying Smog Check equipment manufacturers, including, notification process and ability for manufacturers to request a hearing.

**7. Add Article 3340.17.2 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Add sections (a) – (d) to regulation concerning the ability for an equipment manufacturer to request an informal hearing.

An informal hearing process concerning the issuance of a citation is an alternative hearing to formal hearing and may help alleviate workload on administrative courts.

**8. Amend Section 3340.18 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. These changes incorporate by reference revised specifications and certification procedures for calibration and audit gases.

The “Specifications and Certification Procedures for Calibration and Audit Gases Used in the California Emissions I/M Program” was updated to address proper gas blending and storage procedures necessary to prevent a calibration gas contaminant that could affect calibration accuracy and influence Smog Check inspection results.

**9. Amend Section 3340.42 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend the section title from “Smog Check Emissions Test Methods and Standards” to “Smog Check Test Methods and Standards.”

The title of this section was changed to clarify that the section pertains to all of the Smog Check inspection standards and not just the emissions portion of the inspection.

- b. Amended introductory text to state “Smog check inspection methods are prescribed in the Smog Check Manual, referenced by section 3340.45.”

The introductory text was changed to refer to the Smog Check Manual. This change deleted the following text: “With the exception of diesel-powered vehicles addressed in subsection (f) of this section, the following emissions test methods and standards apply to all vehicles:.” This text is no longer necessary as subsection (a) clearly describes what vehicles will receive a particular inspection.

- c. Add subsection (a) with the following text “All vehicles subject to a smog check inspection, shall receive one of the following test methods:”

Subsection (a) was added to better organize the regulations and to clearly identify which test a particular vehicle will receive.

- d. Amend subsection (a) to delete the text “, except as otherwise specified,” and add the text “1976 – 1999 model-year”, “, except diesel-powered,”, and change the referenced subsection from subsection “(b)” to “(a)”.

This change limits the loaded-mode inspection to 1976 through 1999 model-year vehicles, as required by AB 2289 (Statutes of 2010). The revised text clearly indicates what type of Smog Check inspection a particular model-year vehicle will receive.

This amendment renumbered subsection (a) to subparagraph (1).

- e. Amend subsection (b) by deleting “, unless a different test is otherwise specified in this article,” and add “1976 – 1999 model-year”, “except diesel-powered,”, and change the referenced subsection from “(b)” to “(a)”.

This change limits the tailpipe emissions inspection to 1976 through 1999 model-year vehicles, as required by AB 2289 (Statutes of 2010). The revised text clearly indicates what type of Smog Check inspection a particular model-year vehicle will receive.

This amendment renumbered subsection (b) to subparagraph (2).

- f. Add subparagraph (3) to subsection (a).

This subparagraph describes which model-year vehicles will be subject to an OBD-focused Smog Check inspection, as mandated by H&S section 44012. This change requires gasoline-powered vehicles model-year 2000 and newer and diesel-powered vehicles model-year 1998 and newer to have an inspection on the OIS.

- g. Add subsection (b) to section 3340.42.

Subsection (b) was added to more clearly describe which vehicles are subject to a visual and functional inspection. The visual and functional tests are not new requirements. The details of the visual and functional tests were moved to the Smog Check Manual to reduce redundancy between regulation text and Smog Check Manual.

- h. Remove subsection (c) in its entirety.

Testing procedures for heavy-duty vehicles have been moved to the Smog Check Manual for consistency and clarity.

- i. Add a new subsection (c) to regulation.

This subsection (c) was amended to provide for alternative inspection procedures for vehicles that present incompatibilities and 2000 and newer model-year vehicles with OBD systems that exhibit operational problems, as authorized H&S section 44012. Additionally, vehicles selected for testing pursuant to H&S section 44014.7 may receive an alternative Smog Check inspection.

- j. Amend subsection (d) subparagraph (1) and (3) by making minor conforming changes.

Subparagraphs (1) and (3) were amended to correctly reference the gross polluter standards.

- k. Remove subsections (e) and (f) in their entirety.

These requirements are described in subsection (b) subparagraphs (1) and (2). Additionally, detailed description of the inspection procedures is provided in the Smog Check Manual. The Smog Check Manual relies on simple, easily understood charts as a means to convey ideas that would otherwise require extensive regulation text. Placing the equipment requirements in one location ensures consistency and avoids potential conflicts between the Smog Check Manual and the regulations text.

- l. Remove the “Visible Smoke Test Failure Consumer Information Sheet” form SMOKE INFO (01/07) from regulations.

The “Visible Smoke Test Failure Consumer Information Sheet” was eliminated. This document is redundant as BAR already requires Smog Check stations to indicate on the Vehicle Inspection Report (VIR) and the consumer’s invoice if the vehicle has failed the Visible Smoke Test.

**10. Amend Section 3340.42.2 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend the title from “Pass/Fail Criteria for On-Board Diagnostic System Readiness Monitors” to “Test Methods and Standards for the On-Board Diagnostic Inspection”. This revision more accurately describes the contents of the regulatory section.
- b. Amend subsection (a) and (b) to add “Effective until the implementation of subsection (c),”.

These amended subsections allow the current On-Board Diagnostic (OBD) test methods and standards to remain in place until the OIS Smog Check equipment can be implemented that can enforce the proposed standards in subsection (c). The new OIS smog check equipment is targeted sometime after January 1, 2013.

- c. Add subsection (c) to adopt new OBD Smog Check standards.

Subparagraphs (1) – (8) of subsection (c) list all of the failure modes for the OBD test. Previously many of these requirements were dispersed in the BAR-97 specifications, Smog Check Inspection Procedure Manual, and regulation text. These sections did not fully detail all of the OBD failure criteria. This amendment places all of the OBD failure criteria in one place and provides further detail as to when a vehicle will fail a portion of the OBD inspection.

Most of these criteria are currently applied during a Smog Check inspection. However, certain failure criteria have been added or modified due to the future OIS equipment. Below is a comprehensive description of the changes to subsection (c):

1. Currently, a Malfunction Indicator Light (MIL) inspection is performed on a vehicle. This regulatory action seeks to clarify and describe, in easily understandable language, the failure criteria for the MIL inspection.
2. At present, BAR regulations do not fully or adequately describe the OBD failure criteria. To address this concern BAR elaborated on the failure criteria to better inform consumers. For instance, a vehicle shall fail an OBD inspection if the OBD system reports that the MIL is commanded on, the OBD system reports a diagnostic trouble code (DTC), or the vehicles OBD system does not communicate with the Smog Check inspection equipment. Additionally, BAR modified the failure criteria of incomplete readiness monitors. This means: 1) gasoline-powered vehicles model-years 1996 through 1999 with more than one incomplete monitor will fail an inspection; 2) gasoline-powered vehicles model-years 2000 and newer with any incomplete monitor, excluding the evaporative system monitor, will fail an inspection; 3) diesel-powered vehicles model-years 1998 through 2006 with any incomplete monitors will fail an inspection; 4) diesel-powered vehicles model-years 2007 and newer with any incomplete monitors, excluding the particulate filter system monitor, will fail an inspection.
3. The planned OIS is able to gather more information than the BAR-97 EIS. As a result, additional OBD failure criteria have been added to regulation. The OIS will be able to determine whether the OBD system has been sufficiently operated

to determine the presence or absence of a DTC, if the OBD system data is inappropriate for the vehicle being tested, or if an OBD system does not match the original equipment manufacturer or Air Resources Board exempted OBD software configurations.

This amendment renumbered subsection (c) to section (d).

- d. Amend subsection (d) and subparagraphs (1) and (2) to modify the definitions used in the Test Methods and Standards for the On-Board Diagnostics Inspection section, specifically, the OBD and readiness monitors.

The definitions for On-Board Diagnostics and Readiness Monitor(s) were reworded for improved clarity.

- e. Add subsection (d) subparagraphs (3) and (4).

Diagnostic Trouble Code and the Malfunction Indicator Light definition were added to this section because they are industry specific terms which are used in the Test Methods and Standards for the On-Board Diagnostics Inspection section.

**11. Amend Section 3340.45 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend the title of section 3340.45 from “Smog Check Inspection Procedures Manual” to “Smog Check Manual.”

This change is necessary because the manual will now include Smog Check repair requirements in addition to inspection requirements.

- b. Amend this section to specify an end date for the existing Smog Check Inspection Procedures Manual and specify and start date for the Smog Check Manual.

The majority of these changes are conforming, non-substantive changes to make the language match the rest of the regulation package. Also, this section changes the title of this reference manual from the “Smog Check Inspection Procedures Manual” to the “Smog Check Manual.” This name change was done to more accurately reflect the contents of the manual since the Manual now has required equipment also incorporated into the document. Finally this section adopts an updated version of the *Smog Check Manual* dated 2013.

**12. Amend Section 3394.5 of Article 11 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:**

- a. Amend subsection (a) (9) by adding “or OBD Inspection System (OIS)” to the existing requirement.

This change is necessary because the OBD Inspection System (OIS) is the new piece of equipment to test newer model-year vehicles (2000 and newer). Without this addition these newer model year vehicles would not be able to participate in CAP as they are currently allowed.

### **CONSISTENCY AND COMPATIBILITY WITH EXISTING STATE REGULATIONS**

BAR has evaluated this regulatory proposal and it is not inconsistent, nor incompatible with existing state regulations.

As described in H&S section 44002, BAR is the state agency solely responsible for the development and implementation of the motor vehicle inspection program. The revisions being made during this regulatory package are consistent with USEPA regulations, specifically, Title 40, Part 51, the California Health and Safety Code, BAR regulations, and Air Resources Board (ARB) regulations.

### **INCORPORATION BY REFERENCE**

Title 16 of the California Code of Regulations (CCR) section 3340.17 incorporates the *BAR OBD Inspection System Data Acquisitions Device Specification*, dated October 22, 2012. This document will be used by contractors during the development of the OIS equipment.

Title 16 of the CCR section 3340.17 incorporates the updated *Low Pressure Fuel Evaporative Tester Specifications*, dated January 2012. Updates to the LPFET Specifications have already been implemented by equipment manufacturers. Revisions to the specification are being done to codify existing equipment requirements into statute.

Title 16 of the CCR section 3340.17 incorporates the updated *Specification and Certification Procedures for Calibration and Audit Gases Used in the California Emissions I/M Program*, dated January 2012. Updates to this document have already been implemented by gas blenders which sell gases to Smog Check stations for the use in the BAR-97 EIS. This change is necessary to codify existing requirements concerning audit gases in regulation.

Title 16 of the CCR section 3340.45 incorporates the *Smog Check Manual*, dated 2013. This document will be used by Smog Check inspectors as a guide to performing correct Smog Check inspections. Additionally, licensed Smog Check technicians can use the manual as a reference document for performing proper repairs. Station owners will be able to use the Manual to determine what equipment is required for their particular station.

The incorporation by reference of these documents is appropriate since publishing these documents in the CCR would be cumbersome, unduly expensive, impractical and unnecessary. If

anyone should wish to examine the revised applications, they are available upon request from BAR. The revised documents will also be available for review throughout this rulemaking process and will be available on BAR's Web site at [www.smogcheck.ca.gov](http://www.smogcheck.ca.gov).

**FISCAL IMPACT ON PUBLIC AGENCIES INCLUDING COSTS OR SAVINGS TO STATE AGENCIES AND COSTS/SAVINGS IN FEDERAL FUNDING TO THE STATE:**

Costs associated with the development of the OIS specifications will be fully absorbed within existing resources. Costs associated with the certification of the DAD will be recovered from participating vendors as mandated by Health and Safety Code section 44036.

BAR anticipates that the development of inspection procedures for hybrid-powered vehicles will result in an additional \$2.2 million in revenue to the Vehicle Inspection and Repair Fund. This estimate is based on \$8.25 for each certificate of compliance and 271,246 hybrid inspections each year.

Additionally, modifications to the inspection procedures and the incorporation of hybrid-powered vehicles into the Smog Check Program may increase the number of vehicle owners that are eligible to participate in the Consumer Assistance Program (CAP) due to a greater number of vehicles failing a Smog Check inspection. However, participation in CAP is voluntary and based on the availability of funds. The minor changes to the CAP ineligible vehicles regulation only keep pace with adding the new OIS equipment to the Smog Check program. As a result, BAR does not anticipate any fiscal impact from the proposed changes.

This proposal will result in no costs or savings in federal funding to the state.

**NONDISCRETIONARY COSTS/SAVINGS TO LOCAL AGENCIES:**

None.

**LOCAL MANDATE:**

None.

**COSTS TO ANY LOCAL AGENCY OR SCHOOL DISTRICT FOR WHICH GOVERNMENT CODE SECTIONS 17500-17630 REQUIRES REIMBURSEMENT:**

None.

**BUSINESS IMPACT:**

BAR has made an initial determination that the proposed regulation may have a significant statewide adverse economic impact directly affecting business. However, this proposed regulation will not affect the ability of California business to compete with businesses in other states.

## Smog Check Stations – Equipment

### *OBD Inspection System*

Smog Check stations opting to either participate in the STAR Program or to inspect 2000 and newer model-year vehicles must purchase the OIS. Equipment manufacturers will use the equipment specifications to build the DAD, which will then be certified by BAR for use in the Smog Check Program. The DAD will facilitate the transfer of data between a vehicles OBD system and a computer enabled device. As required by AB 2289, the OIS cannot be implemented until 2013.

OBD inspection systems similar to the one proposed by BAR have been procured by other states. For instance, New York currently utilizes a single source vendor for its OBD inspection system, which costs \$2,666.91<sup>3</sup>. This system is bundled as a package and requires the use of components sold by a specific vendor. To address concerns associated with the current absence of interchangeable parts for the current BAR-97 EIS, BAR decided to set performance standards rather than prescribing specific brand of equipment. For instance, Smog Check station owners will be able to purchase any of the commercially available ancillary equipment (i.e., computer enabled device, monitor, printer, and a barcode scanner), which meets BAR performance standards, from any source. This flexibility will allow station owners to shop around for the lowest costing equipment or to use existing equipment (i.e., printer, computer enabled device, bar code scanner, etc.). As a result, BAR anticipates that the OIS may cost up to \$3,000.

Non-STAR certified Smog Check stations have flexible equipment requirements. This means stations are only required to possess the equipment, tools and reference materials for the types of vehicles being inspected. This allows stations to make a business decision regarding whether it is cost effective to continue to operate the BAR-97 EIS, or opt to purchase the OIS, or utilize both. For instance, a station can decide to inspect 1999 and older model-year vehicles with a BAR-97 EIS or inspect 2000 and newer model-year vehicles with the OIS or a combination of both.

This proposed regulatory action only requires STAR-certified stations to purchase the OIS. However, if all 7,200 active Smog Check stations purchase an OIS at an estimated total package cost of \$3,000, then the total statewide impact would be \$21.6 million (7,200 stations X \$3,000 = \$21.6 million).

### *BAR-97 EIS*

Tailpipe emissions tests are required on most 1976 through 1999 model-year vehicles and must be performed on the BAR-97 EIS. As a result, the current tailpipe emissions test volume will diminish over time, while OBD-focused inspection volume will rise. Because many non-STAR Smog Check stations will have flexible equipment requirements, BAR anticipates that stations

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<sup>3</sup> <http://www.nyvip.us/interior/configure.php>. A basic unit consists of a Lenovo ThinkCenter computer, Viewsonic 17" LCD color display, Lexmark inkjet printer, HHP3800 Barcode Scanner, and an Actron KM9020 OBDII Scan Kit.

may choose to concentrate on OBD-focused inspections, thus eliminating overhead costs associated with the BAR-97 EIS.

### Smog Check Stations – OBD Standards

This proposed regulatory action reduces the maximum number of incomplete OBD monitors a vehicle can be reporting at the time of a Smog Check inspection. As previously indicated, this modification will raise the Smog Check failure rate and result in up to an additional 183,159 gasoline-powered vehicles failing an inspection due to incomplete monitors annually. These gasoline-powered vehicles must be repaired in order to complete their vehicle registration process. Based on repair data entered into the BAR-97 EIS by Smog Check inspectors, BAR anticipates the average repair cost to be \$329.90<sup>4</sup>. It is estimated that consumers will spend \$60.4 million (183,159 failures x \$329.90 estimated repair cost = \$60.4 million) annually on repairs in order to bring a vehicle back into compliance with the Smog Check Program.

Additionally, BAR data indicates that changing the number of allowable readiness monitors on 1998 and newer diesel-powered vehicles will raise the overall failure rate by 6.4%. As with the gasoline-powered vehicles, the actual failure rate may be 50% less. As a result, BAR anticipates a 3.2% increase to the failure rate or an additional 5,969 failures annually. These failures may result in an additional \$2 million being spent annually on the repair of diesel-powered vehicles (5,969 failures x \$329.90 estimated repair cost = \$2 million).

Further, approximately 271,246 hybrid-powered vehicles that were previously exempted from the Program due to testing incompatibilities with the BAR-97 EIS, will now receive an OBD-focused inspection on the OIS. The incorporation of hybrid-powered vehicle inspection procedures will result in an estimated 271,246 additional Smog Check inspections and 10,044 inspection failures annually. As a result, BAR anticipates that the total statewide impact to individuals will be an additional **\$6.8 million** [(271,246 inspections X \$13 inspection cost) + (10,044 failures X \$329.90 repair cost)] to **\$12.3 million** [(271,246 inspections X \$33 inspection cost) + (10,044 failures X \$329.90 repair cost)] in inspection and repair services. This estimate is based on the proposed OBD-focused inspection cost between \$13 and \$33 per inspection and an average repair cost of \$329.90 as reported in the 2011 BAR Executive Summary.

Some costs to consumers will be offset through lower Smog Check inspection costs and improved air quality. As identified in the Air Resources Board's (ARB) March 2009 report, "Transitioning Away from Smog Check Tailpipe Emission Testing in California for OBDII Equipped Vehicles" estimated that the cost of a Smog Check inspection would decrease by \$15 to \$35 from the current inspection cost. By applying this analysis to the current \$48 average Smog Check inspection cost, the proposed OBD-focused inspection may cost between \$13 and \$33 per inspection. In calendar year 2011, 6.2 million<sup>5</sup> vehicles that received a Smog Check inspection were model-year 2000 and newer. BAR estimates that consumers will save between \$93.0 (\$15 decrease in inspection cost x 6.2 million = \$93.0 million) and \$217.0 million (\$35 decrease in inspection cost x 6.2 million = \$217.0 million) in the first full year of this regulation.

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<sup>4</sup> As reported in the 2011 BAR Executive Summary, the average repair cost for a Smog Check failure was \$329.90.

<sup>5</sup> BAR 2011 Executive Summary Report.

The proposed regulatory change may lower Smog Check station revenue by \$14.3 million to \$138.3 million annually. This estimate is based solely on the difference between the costs associated with additional repair work and lower inspection costs.

#### DAD Manufacturers

The manufactures of the new DAD equipment are estimated to sell 7,200 units (current number of Smog Check stations) at an estimated cost of \$3,000 each for a total of \$21.6 million (7,200 stations X \$3,000 per DAD = \$21.6 million). The DAD manufactures will be required to pay a \$10,000 certification fee to BAR to partially cover the costs of certification. The cost to certify each submitted device will grossly exceed \$10,000. Specifically, for each piece of equipment certified, BAR has estimated that it must purchase \$38,210 in hardware and invest staff time that will at minimum cost \$166,977.

#### BAR-97 EIS Manufacturers

Currently, the BAR-97 EIS is manufactured by four vendors. When the BAR-97 EIS was first introduced in 1998, Smog Check stations made an initial investment by purchasing the BAR-97 EIS. As a result, demand for purchasing new BAR-97 EIS units has dissipated. The current BAR-97 EIS manufacturers derive a portion of their revenue from servicing the ageing BAR-97 EIS. Because non-STAR Smog Check stations have flexible equipment requirements, BAR-97 EIS manufacturers may lose revenue associated with the maintenance of existing BAR-97 EIS units and the sale of new units.

BAR has considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit proposals. Submissions may include the following considerations:

1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to businesses.
2. Consolidation or simplification of compliance and reporting requirements for businesses.
3. The use of performance standards rather than prescriptive standards.
4. Exemption or partial exemption from the regulatory requirements for businesses.

BAR does not anticipate any new reporting, recordkeeping or other compliance requirements as a result from the proposed action.

#### **COST IMPACT ON REPRESENTATIVE PRIVATE PERSON OR BUSINESS:**

The costs that a representative private person or business would necessarily incur in reasonable compliance with the proposed action and that are known to BAR are:

1. The implementation of the new OIS will save consumers time, may lower inspection costs, will help to improve air quality, and will help to lower Smog Check stations equipment maintenance costs. As described below, consumers may save between \$18.3 and \$147.8 million annually from lower inspection costs.

	Savings/Costs <sup>6</sup>	
	Low	High
OBD-Focused Inspection	(\$93.0)	(\$217.0)
Modified Inspection Procedures	\$74.7 <sup>7</sup>	\$69.2
Total	(\$18.3)	(\$147.8)

This translates to \$183 million to \$1.48 billion over the lifetime (10 years) of this proposed regulatory action.

2. Additionally, consumers that fail a Smog Check inspection may seek financial assistance to repair or retire their vehicles through BAR's Consumer Assistance Program (CAP). The Repair Assistance (RA) option helps to mitigate the cost of bringing a vehicle into compliance with Smog Check Program. The RA option will provide income eligible consumers up to \$500 in financial assistance toward emissions-related repairs. Further, consumers may elect to retire their vehicle and receive immediate compensation of \$1,000, or \$1,500 if income eligible. Participation in CAP is subject to available funding.
3. It is anticipated that Smog Check stations will see a shift in revenue from inspections to repairs. *BAR-97 EIS*

Non-STAR Smog Check stations will have flexible equipment requirements. BAR anticipates that some stations may choose to concentrate on OBD-focused inspections, thus reducing overhead costs associated with the BAR-97 EIS.

#### *OBD Standards*

As previously indicated, reducing the maximum number of incomplete readiness monitors a vehicle can report may result in an additional 183,159 gasoline-powered vehicles failing an inspection annually. Repairing these vehicles will result in an additional \$60.4 million (183,159 x \$329.90 estimated repair cost = \$60.4 million) in annual station revenue.

<sup>6</sup> Figures shown in millions.

<sup>7</sup> Consumers will likely spend an additional \$69.2 million to \$74.7 million on Smog Check inspection and/or repairs (\$60.4 million due to an additional 183,159 vehicle failing a Smog Check inspection, \$2 million due to an additional 5,969 diesel-powered vehicles failing an inspection, and \$6.8 million to \$12.3 million from additional inspections and repairs for hybrid-powered vehicles.

Additionally, BAR anticipates that the readiness monitor changes will raise the overall diesel failure rate by approximately 3.2%. In turn, an additional 5,969 diesel failures will occur annually. These failures may result in an additional \$2 million being spent annually on the repair of diesel-powered vehicles (5,969 failures x \$329.90 estimated repair cost = \$2 million).

The incorporation of hybrid-powered vehicle inspection procedures will result in an estimated 271,246 additional Smog Check inspections and 10,044 inspection failures annually. As a result, BAR anticipates that stations will receive an additional \$6.8 million to \$12.3 million in inspection and repair services. This estimate is based on the proposed OBD-focused inspection cost between \$13 and \$33 per inspection and an average repair cost of \$329.90 as reported in the *2011 BAR Executive Summary*.

### **EFFECT ON HOUSING COSTS:**

None.

### **EFFECT ON SMALL BUSINESS:**

BAR has determined that the proposed regulations would affect small businesses.

### **RESULTS OF ECONOMIC IMPACT ASSESSMENT/ANALYSIS:**

BAR has made an initial determination that the proposed regulatory action will not have any impact on the creation of jobs or new businesses, the elimination of jobs or existing businesses, the expansion of businesses, or worker safety in the State of California.

BAR has made an initial determination that the proposed regulatory action will have the following benefits to the health and welfare of California residents and state's environment:

Recent studies such as the 2010 RAND Health Foundation report, *The Impact of Air Quality on Hospital Spending*, concluded that, "Meeting federal clean air standards would have prevented an estimated 29,808 hospital admissions and ER visits throughout California over 2005 - 2007... Failing to meet federal clean air standards cost health care purchasers/payers \$193,100,184 for hospital care alone. In other words, improved air quality would have reduced total spending on hospital care by \$193,100,184 in total."

Additionally, an ARB study, *Health Effects of Particulate Matter and Ozone Air Pollution*, November 2007,<sup>8</sup> identified significant health effects attributable to high levels of ozone. Polluting vehicles produce hydrocarbons and oxides of nitrogen which combine in the presence of sunlight to form bad ozone. The report stated that, "Ozone is a powerful oxidant that can damage the respiratory tract, causing inflammation and irritation, and induces symptoms such as coughing, chest tightness, shortness of breath, worsening of asthma symptoms, and even death. Ozone in sufficient doses increases the permeability of lung cells, rendering them more

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<sup>8</sup> [http://www.arb.ca.gov/research/health/fs/pm\\_ozone-fs.pdf](http://www.arb.ca.gov/research/health/fs/pm_ozone-fs.pdf)

susceptible to toxins and microorganisms. The greatest risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation and lung tissue damage, and a reduction in the amount of air inhaled into the lungs. Recent evidence has, for the first time, linked the onset of asthma to exposure to elevated ozone levels in exercising children (McConnell, 2002). These levels of ozone also reduce crop and timber yields, damage native plants, and damage materials such as rubber, paints, fabric, and plastics.”

Further, a recent study by USEPA, *Estimating the National Public Health Burden Associated with Exposure to Ambient PM2.5 and Ozone*, found that, “Ground-level ozone (O<sub>3</sub>) and fine particulate matter (PM2.5) are associated with increased risk of mortality... Using PM2.5 and O<sub>3</sub> mortality risk coefficients drawn from the long-term American Cancer Society (ACS) cohort study and National Mortality and Morbidity Air Pollution Study (NMMAPS), respectively, we estimate 130,000 PM2.5-related deaths and 4,700 ozone-related deaths to result from 2005 air quality levels. Among populations aged 65–99, we estimate nearly 1.1 million life years lost from PM2.5 exposure and approximately 36,000 life years lost from ozone exposure. Among the 10 most populous counties, the percentage of deaths attributable to PM2.5 and ozone ranges from 3.5% in San Jose to 10% in Los Angeles. These results show that despite significant improvements in air quality in recent decades, recent levels of PM2.5 and ozone still pose a nontrivial risk to public health.”

These recent studies suggest that, although California air quality has improved, additional reductions to smog-forming pollutants are necessary. Revisions to the number of permissible unmet OBD readiness monitors will likely increase the Smog Check failure rate. Further, by developing alternative inspection procedures for vehicles currently incompatible with the BAR-97 EIS, BAR will actually be able to inspect these vehicles as part of the Smog Check Program. Each of these actions will help contribute to an overall reduction in pollution.

### **CONSIDERATION OF ALTERNATIVES**

BAR must determine that no reasonable alternative, which it considered or that has otherwise been identified and brought to its attention, would either be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposal described in this Notice or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

Any interested person may present statements or arguments orally or in writing relevant to the above determinations at the above-mentioned hearing.

### **INITIAL STATEMENT OF REASONS AND INFORMATION**

BAR has prepared an Initial Statement of Reasons for the proposed action and has available all the information upon which the proposal is based.

### **TEXT OF PROPOSAL**

Copies of the exact language of the proposed regulations and of the Initial Statement of Reasons, and all of the information upon which the proposal is based, may be obtained at the hearing or prior to the hearing upon request from the Bureau of Automotive Repair at 10949 North Mather Blvd., Rancho Cordova, California, 95670.

**AVAILABILITY AND LOCATION OF THE RULEMAKING FILE  
AND THE FINAL STATEMENT OF REASONS**

All the information upon which the proposed regulations are based is contained in the rulemaking file. Further, the express terms, Initial Statement of Reasons, and information upon which the proposed regulations are based is available for public inspection by contacting the persons named below.

You may obtain a copy of the final statement of reasons once it has been prepared, by making a written request to the contact person named below or by accessing the Web site listed below.

**CONTACT PERSON**

**Inquiries or comments concerning the proposed administrative action may be addressed to:**

Greg Coburn  
Bureau of Automotive Repair  
10949 North Mather Blvd., Rancho  
Cordova, California, 95670  
Telephone: (916) 403-0154  
E-mail: greg.coburn@dca.ca.gov

**The backup contact person is:**

Paul Hedglin  
Bureau of Automotive Repair  
10949 North Mather Blvd., Rancho  
Cordova, California, 95670  
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E-mail: paul.hedglin@dca.ca.gov

**WEB SITE ACCESS**

Materials regarding this proposal can also be found on BAR's Web site at [www.smogcheck.ca.gov](http://www.smogcheck.ca.gov).