

BUREAU OF AUTOMOTIVE REPAIR

INITIAL STATEMENT OF REASONS

HEARING DATE(S): **Monday, February 12, 2018**

SUBJECT MATTER OF PROPOSED REGULATIONS: Smog Check Inspection Equipment, Procedures, and Reference Documents

SECTIONS AFFECTED: § 3340.17, 3340.41, 3340.45 of Title 16, Division 33, Chapter 1, Article 5.5 of the California Code of Regulations

PURPOSE OF THE REGULATORY PROPOSAL:

The Bureau of Automotive Repair (Bureau or BAR) is the state agency charged with administration and implementation of the Smog Check 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. Smog Check stations are required to use BAR-certified equipment when performing Smog Check inspections. BAR-certified equipment currently in use by California Smog Check stations includes the BAR-97 emissions inspection system (BAR-97 EIS or EIS) and the On Board Diagnostic Inspection System (OIS). An EIS, which measures tailpipe emissions, is required to perform tailpipe inspections on model year 1999 and older vehicles, while an OIS is required to inspect model year 2000 and newer vehicles.

The proposed action includes critical updates affecting the BAR-97 EIS. These updates are seen in the BAR-97 EIS Specifications, which includes requirements for manufacturers that develop the equipment certified by BAR, and the Smog Check Manual, which includes requirements for Smog Check station equipment and testing procedures. Both of these documents are incorporated by reference in regulation. In addition to the updates, the proposed action makes other changes in the incorporated documents and in regulations concerning inspection requirements that are necessary to improve Smog Check Program administration and operations.

An overview of these updates and their purpose(s) follows.

I. §3340.17 – Incorporate updated BAR-97 Emission Inspection System Specifications, dated July 2017, by reference:

To protect consumers, pursuant to Health and Safety Code section 44036, the Bureau certifies Smog Check inspection equipment to ensure uniform and consistent tests and repairs by Smog Check stations throughout the state. Also,

pursuant to Health and Safety Code section 44037.1, the Bureau designs and establishes the equipment necessary to operate a centralized network which collects and provides data related to smog inspections. To accomplish these statutory goals, the Bureau sets forth specifications to which manufacturers of emissions inspection equipment must adhere. The proposed updates to these specifications ensure consistent smog inspections statewide and improve Smog Check inspection equipment and data sharing in several ways.

First, the proposed specifications ensure ready accessibility of BAR's Vehicle Information Database to all licensed Smog Check technicians by requiring that all BAR-certified emissions inspection systems communicate with BAR's Vehicle Information Database (VID) over the Internet. The current BAR-97 EIS, which was developed nearly twenty years ago, still transmits information similarly to a fax machine. That is, it relies on modems to transmit data to and receive data from the VID through traditional analog phone lines. The currently incorporated specifications set forth requirements regarding the telephonic communication between a station's EIS and the VID. This proposed action will remove those requirements and instead simply require industry standard Internet communication between the EIS and the VID.

Internet connectivity is necessary to ensure the continued vitality of the Smog Check Program in California. About 5,551¹ Smog Check stations (including STAR stations²) use the BAR-97 EIS. To support use of this inspection system, BAR maintains a host of modems which receive "calls" from BAR-97 EIS and transmit the information to the VID. Due to the continual loss of copper-based connections and the overall movement to Internet-based phone services, dial-up modems have become increasingly difficult and expensive to maintain. Moreover, traditional phone lines are becoming increasingly unreliable. When a phone line fails, stations cannot perform inspections, lose income, and inconvenience customers. Phone line outages typically affect several stations in a region and usually last a few days.

Second, the proposed specifications ensure optimal functionality of emissions inspection equipment and consistent Smog Check tests statewide by requiring sufficiently up to date emissions inspection system hardware and software. In order for important software updates to be provided for BAR-certified emissions inspection systems, *all* systems statewide must be capable of being updated since, pursuant to Health and Safety Code section 44036, motorists must receive uniform inspections at all stations. However, it is cost prohibitive to provide software updates for systems running obsolete operating system software.

¹ Number of stations conducting OIS and EIS inspections, found in BAR's March 2016 "Executive Summary Report."

² STAR stations are required to operate both an EIS and OIS, as they are required to inspect both older and newer vehicles. Currently, about 4,200 stations are STAR certified.

The BAR-97 EIS currently uses the MS DOS and IBM OS2 computer operating systems, which ceased to receive manufacturer support years ago. This prevents BAR from implementing changes that, for example, block certificate issuance upon detection of a fraudulent inspection. The updated specification requires a supported Microsoft Windows operating system, which at this time would include Windows 7 or newer operating systems. This requirement ensures BAR can provide software updates to emissions inspection systems to continually improve the Smog Check Program.

Third, the proposed specifications ensure BAR can effectively enforce Smog Check inspection requirements by requiring that the BAR-97 EIS capture data directly from the low pressure fuel evaporative tester (tester) during smog inspections. Low-pressure evaporative testing inspects for evaporative emissions control problems such as fuel tank and vapor line leaks. Currently, the technical data upon which the results of the test (i.e., pass/fail) are based is transmitted to a contractor's database and then forwarded to BAR. The capture of data by a third party prior to transmittal to BAR breaks the chain of custody of the data and limits BAR's ability to take enforcement action against stations performing improper inspections with the tester. Therefore, BAR proposes to require that the EIS capture the data directly from the tester and transmit it to the VID.

Fourth, the proposed specifications require various technical updates that improve the functioning of the EIS. For example, the EIS must now transmit additional data related to the calibration of the EIS, which allows BAR to better monitor equipment reliability.

II. **§3340.41 - Revise Inspection Requirements:**

Health and Safety Code section 44036 requires the protection of consumers subject to the Smog Check Program by ensuring uniform and consistent tests and repairs at Smog Check stations throughout the state. Health and Safety Code section 44030 requires the Department of Consumer Affairs (the department or BAR) to develop licensing standards for Smog Check stations that may include requirements for the use of tamper-resistant testing equipment. Health and Safety Code section 44012 requires that inspections performed at Smog Check stations adhere to procedures prescribed by the Department. The test procedures must, among other things, ensure emission control systems required by state and federal law are reducing excess emissions.

The proposed changes clarify that existing Smog Check inspection, test, and repair requirements apply to the new On Board Diagnostic Inspection System (OIS) equipment in addition to the old EIS equipment (BAR-97 EIS). These include requirements to provide the motorist an inspection report and to protect inspection equipment from unauthorized access or tampering, as well as a prohibition against entry of vehicle information other than for the vehicle being

tested. Applying the same requirements to an inspection regardless of the type of equipment needed to perform the inspection ensures consistency in smog inspections statewide.

III. **§3340.45 – Incorporate updated Smog Check Manual, dated 2017, by reference:**

Pursuant to Health and Safety Code section 44012, the Bureau prescribes Smog Check inspection procedures for all Smog Check stations. The proposed Smog Check Manual contains important updates regarding Smog Check inspection equipment and procedures.

First, the proposed manual requires Smog Check stations to use Internet based communication between the EIS and the VID in lieu of a dedicated phone line. The currently incorporated Smog Check Manual already requires stations to use a BAR certified EIS. After the 2017 versions of the BAR-97 EIS Specifications and Smog Check Manual become effective, BAR will begin certifying that BAR-97 EIS meet the updated BAR-97 EIS specifications and requiring stations to use this newer equipment.

Second, the proposed manual clarifies inspection procedures for certain portions of a smog inspection, including the visual fuel cap inspection and the visual inspection of gasoline-powered hybrid vehicles for liquid fuel leaks. In addition, the proposed manual contains minor formatting, grammatical and editorial changes as necessary to improve clarity and conciseness.

Third, Appendix C was added to the manual to clarify requirements for inspecting certain aftermarket emissions control devices pursuant to Vehicle Code Section 27156. Currently, these requirements are not enforceable by BAR given they are not incorporated in regulation.

NECESSITY OF THE REGULATORY PROPOSAL:

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

1. 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. Amend subsection (a) by replacing the specification version date of “May 1996, as revised through July 2009” with “July 2017.”

This amendment is necessary to incorporate the updated BAR-97 Emissions Inspection System Specifications containing important new requirements, as well

as make minor formatting, grammatical and editorial changes as necessary to improve clarity and conciseness.

- b. Update the Specification document incorporated by reference, "BAR-97 Emission Inspection System" dated July 2017 to include the following changes:
 - i. Throughout Sections 1, 2, 3, and 5, of the specification, remove and/or replace references to outdated technology and modes of data transfer that are no longer used (or required to be used) in emission inspection systems.
 - a) These instances include:
 - i. Removing terms such as read-only memory (ROM) programs, bi-directional parallel port, DOS/IBM compatible parallel port, microcomputers (whole section deleted in Section 2), certain external connectors, and serial port diagnostics.
 - ii. Replacing "modem," "dial up," and "dial tone check" terminology and/or requirements with internet protocol terminology (ex. TCP/IP, VID IP address) and requirements.
 - iii. Replacing terms such as floppy disk, data disk, and disk mechanism with the term USB drive.
 - b) These changes are necessary to remove references to outdated technology and modes of data transfer and where applicable replace them with modern modes of data transfer/storage that will now be required by BAR.
 - ii. Section 1
 - 1) Proposed changes to Section 1 include the addition of a summarized explanation of changes and replacing terms such as "modem" and "dial up" with "TCP/IP" protocol throughout, for the reason stated above.
 - 2) On page 2, this text was deleted "The Appendices contain items referred to in the Specification such as the emissions standards table, and the test record format as well as highly technical and strictly confidential items."
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer eyes only.
 - 3) In section 1.1, this text was added "The 2017 version of the BAR-97 EIS Specification is updated to require that the BAR-97 EIS to run on hardware and software that meet the current industry standard as determined by BAR. The current industry standard shall be considered PCs using an operating system currently supported by Microsoft. In addition, the BAR-97 EIS shall use the standard transmission control protocol/Internet Protocol (TCP/IP) communication between the BAR-97 EIS and BAR's Vehicle Information Database (VID).

The BAR-97 EIS shall be upgradeable as necessary to meet changing requirements due to changes in technology and /or regulation.

- a) In the proposed specification, this text was added to summarize the reason for the updates in July 2017 version.
- 4) In section 1.3.2 (a), this text was deleted “as described in Confidential Appendix C-2.”
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer eyes only.

iii. Section 2

- 1) Throughout, minor syntactic edits have been made to improve clarity of the text.
- 2) In section 2.1.1, first paragraph, deleted “Computers shall be IBM-PC compatible currently available and industry standard. They shall be able to reliably read and/or write IBM-compatible 1.44Mb 3.5” diskettes, CDs and DVDs.
 - a) The text in section 2.1.1 was amended to remove requirements applicable to obsolete equipment.
- 3) In section 2.1.1, first paragraph, replaced “Systems” with “Computers”.
 - a) “Systems” was changed to “Computers” to correctly refer to the computer used within the analyzer system and not the whole analyzer system.
- 4) In section 2.1.1, second paragraph, deleted “Systems must be capable of communicating with computers using modems and dial-up connection. The power supply must have the potential to handle at least 100 watts of additional BAR upgrade devices.”
 - a) The text in section 2.1.1 was amended to remove requirements applicable to obsolete equipment.
- 5) In section 2.1.1, second paragraph, added “Personal Computers shall use a current supported (per Microsoft’s “Windows Lifecycle Fact Sheet”) version of Microsoft Windows Operating System (OS). When the OS is no longer supported, the OS shall be updated to a newer version. BAR may allow continued use of an unsupported OS at its discretion. The Windows Lifecycle Fact Sheet is available on Microsoft’s website, at: <https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet>.”
 - a) The text in section 2.1.1 was amended to remove requirements applicable to obsolete equipment. New text was added to section 2.1.1 to require a supported version of Microsoft Windows operating system, with “current” defined by

Microsoft's Windows Lifecycle Fact Sheet. This new requirement will provide BAR the authority to require current operating system software which is necessary to facilitate future inspection software changes dictated by changing BAR business needs.

- 6) In section 2.2.1, deleted "Custom ROM programs developed by the manufacturer for building the analyzer are allowed."
 - a) The text in section 2.2.1 was deleted because of obsolescence and was a permissive item and not a requirement.
- 7) In section 2.2.2, deleted "The calendar shall handle the year rollover from 1999 to 2000."
 - a) The text in section 2.2.2 was deleted because of obsolescence.
- 8) In section 2.2.3, update file transfer requirements to support Internet based communication, USB drive use in lieu of floppy drive, and delete bi directional port.
 - a) This change is necessary to support Internet based communication and update hardware to modern technology.
- 9) In section 2.3, add specific requirements for the EIS computer, including the requirement to have a supported Microsoft Windows Operating System, and permit unsupported operating systems at the discretion of BAR.
 - a) The computer requirements are necessary to ensure emissions inspection equipment remains sufficiently modern to support the Smog Check Program. For example, supported systems and the use of an Internet connection allow BAR to update equipment as needed and use current modes of electronic communication and data transfer. Allowing continued use of an unsupported operating system at BAR's discretion is necessary to ensure that stations are provided a sufficient opportunity to transition to newer equipment.
- 10) In section 2.3, (b) - (d), added specific requirements for the EIS computer, including the requirement to read and write to USB, CD or DVD, have at least two unused USB ports, have one USB drive secured within the cabinet designated the State drive,
 - a) The computer requirements are necessary to ensure emissions inspection equipment remains sufficiently modern to support the Smog Check Program. For example, the use of a USB data storage device permits current in-use technology.
- 11) In section 2.3 (e), added "Systems must be capable of communicating with the VID using TCP/IP connection."

- a) The text was added to change the analyzer to VID connection requirement from the obsolete dialup connection to the currently required Internet based TCP/IP connection.
- 12) In section 2.3.1, deleted entire section relating to minimum requirements for microcomputer.
- a) This change is necessary to delete references to outdated technology and given new requirements for the computer to run the supported operating system version. It is no longer necessary to specify detailed computer components to ensure adequate performance.
- 13) In section 2.3.1, delete DOS/IBM parallel port.
- a) This requirement was deleted since it is not required.
- 14) In section 2.3.2, add language permitting use of a mouse.
- a) This change is necessary to permit current technology.
- 15) In section 2.3.2, provide that if a computer mouse requires use of a USB port, there still must be at least two unused USB ports.
- a) This change is necessary to clarify the computer requirement regarding USB ports in the context of using a mouse.
- 16) In section 2.3.3, delete entire section containing modem requirements.
- a) Modem requirements are no longer necessary since and Internet connection will be used in lieu of traditional phone line connection to BAR's database.
- 17) In section 2.3.4, this text was deleted "(see Appendix C)".
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer eyes only.
- 18) In section 2.4.3, delete footnote indicating electrochemical cells do not meet the Specifications.
- a) This change is necessary to allow the use of electrochemical cells that meet the Specifications.
- 19) In section 2.4.5, update the revision date in the footnote for gas blender specifications incorporated by reference, titled "Specifications and Certification Procedures for Calibration and Audit Gases Used in the California Emissions I/M Program," from November 1996 to January 2012.
- a) This change is necessary to reference the correct specifications. A revised version of the gas blender specifications was

incorporated by reference in regulation in 2013 (see OAL File No. 2013-0322-07S).

- 20) In section 2.6.1, deleted requirements for phone line.
 - a) This change supports the change to Internet communication instead of traditional dialup communication.
- 21) In section 2.8 (k), revise requirements for fuel cap tester adapters to reflect existing regulation that fuel cap integrity testing applies only to 1995 and older model year vehicles and not to 1996 and newer model year vehicles.
 - a) These changes are necessary to align the BAR-97 EIS Specifications to regulatory changes made in 2013 that limited fuel cap integrity testing to 1976 through 1995 model year vehicles (see OAL File No. 2013-0322-07S).

iv. Section 3

- 1) Throughout, minor syntactic edits have been made to improve clarity of the text.
- 2) Throughout, require the EIS to refer vehicles to “Referee/*STAR-Certified*” stations instead of “Referee/*Test-Only*” stations.
 - a) This change is necessary to align the Specifications with changes resulting from AB 2289 (Statutes of 2010), which replaced the Gold Shield certification program with the STAR Program. Prior to AB 2289, only Test-Only stations and Gold Shield-certified could test directed vehicles. With the enactment of AB 2289, directed vehicles may be tested only by licensed stations certified under the STAR Program, which include Test-Only and Test-and-Repair stations.
- 3) In section 3.2.3, add language clarifying EIS manufacturers shall submit software updates to BAR for testing and approval as well as generate test data to accompany these updates.
 - a) This change is necessary to clarify existing requirements.
- 4) In section 3.2.3 (b), replace “floppy disk” with “USB drive or remote server connection”.
 - a) This change is necessary to update technology.
- 5) In section 3.2.3 (d), this text was deleted “per Confidential Appendix C-2”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.

- 6) In section 3.2.5, replace “disk or decompressed file” with “USB drive installation”.
 - a) This change is necessary to require the virus scan be applied to the newer software update storage media.
- 7) In section 3.2.10, this text was deleted “Appendix C, “Vehicle Inspection Report” for”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 8) In section 3.2.12 (4), this text was deleted “& Appendix C-4”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 9) In section 3.2.12 (5), this text was deleted “& Appendix C-4”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 10) In section 3.3.1 (b), this text was deleted “and is described in the Confidential Appendix C-2”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 11) In section 3.3.1 (c), this text was deleted “in Confidential Appendix C-2”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 12) In section 3.3.1 (c), this text was deleted “(refer to Confidential Appendix C-2)”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 13) In section 3.3.1 (j), this text was deleted “(described in Confidential Appendix C-3)”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.

- 14) In section 3.3.2 (1), this text was deleted “See Confidential Appendix C-2 for additional detail”.
 - a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.

- 15) In section 3.3.2, add information providing that when the EIS attempts to establish communication with the VID and fails, the inspection shall be stopped if the VID commands a no-contact limit of “999.”
 - a) This change is necessary to allow BAR to require that the BAR-97 EIS be connected to the VID when performing inspections. This change will prevent stations without STAR certification from inspecting directed vehicles when their BAR-97 EIS is disconnected from the VID.

- 16) In section 3.3.7, delete vehicle model year example.
 - a) This change is necessary so changes are not required to the specification every calendar year.

- 17) In section 3.3.7, require the EIS to display prompts stating “All diesel-fueled vehicles and 2000 model year and newer gasoline-fueled vehicles that are OBDII equipped must be tested using the OIS.”
 - a) This change to the EIS is necessary to provide stations additional notice of the current requirement in place per the 2013 Smog Check Manual.

- 18) In section 3.3.10, delete “(Appendix A)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 19) Delete entire section 3.4.2.
- a) These modem requirements are no longer necessary given the change to Internet based communication that does not use a modem.
- 20) In section 3.6.3 (e) (6), delete “in Appendix C-5”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 21) In section 3.6.3 (g) (1), delete “(A complete listing of acceptable abbreviations for the issuing state is in the Confidential Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 22) In section 3.6.5 (b) (1), delete “(see Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 23) In section 3.6.6 (f), (g), delete “Referee/Test-Only Center” and replace with “REFEREE/STAR-CERTIFIED STATION”.
- a) This screen message was updated to match the current station types.
- 24) On pages 3.6.6 (n) 4., 3.6.19, 3.6.19 7) delete language related to performing the fuel fill pipe restrictor test.
- a) These changes are necessary to align the BAR-97 EIS Specifications to regulatory changes made in 2013 that eliminated the requirement to perform the fill pipe restrictor test as part of a smog inspection (see OAL File No. 2013-0322-07S).
- 25) In section 3.6.6 (o), delete “(see Confidential Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 26) In section 3.6.6 (p), delete “(see Confidential Appendix C-2)”.

- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 27) In section 3.6.7 (a), delete “Referee/Test Only center” and add “Referee/STAR-Certified Station”.
- a) The Test Only station type has changed to STAR-Certified station type so this change is reflecting this current naming convention.
- 28) In section 3.6.7 (b), add “**ALL DIESEL-FUELED VEHICLES AND 2000 MODEL YEAR AND NEWER GASOLINE-FUELED VEHICLES THAT ARE OBDII EQUIPPED AND UNDER 14,001 GVWR, MUST BE TESTED USING THE OIS. DO YOU WISH TO CONTINUE? (Yes/No)**”.
- a) At the beginning of every inspection, this new screen prompt will inform inspectors when to use alternate inspection equipment. It will provide stations with additional notice of the current requirement in place per the 2013 Smog Check Manual.
- 29) In section 3.6.7 (b), add “If “YES”, the EIS shall continue with the inspection. If “NO”, the EIS shall abort the inspection.”
- a) Requiring inspector acknowledgement after the reminder to use the OIS on certain vehicles will prevent from inspectors from using incorrect inspection equipment and will support BAR corrective action when incorrect inspection equipment is used.
- 30) In section 3.6.7 (b), delete vehicle model year example.
- a) This change is necessary so changes are not required to the specification every calendar year.
- 31) In section 3.6.7 (b)(4), add “if “YES”, the EIS shall continue with the inspection. If “NO”, the EIS shall abort the inspection.
- a) Requiring inspector acknowledgement after checking the model year is necessary to prevent inspectors from performing inspections on certain exempted vehicles and will support BAR corrective action when an inspector incorrectly exempts a vehicle based on its model year.
- 32) In section 3.6.7 (h), delete “(refer to Confidential Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer eyes only.

- 33) In section 3.6.12 (i), require the EIS to add certain ASM emissions test data to the record transmitted to the VID.
- a) These changes are necessary to ensure BAR can monitor the condition and accuracy of emissions inspection equipment.
- 34) In section 3.6.19 delete “Fillpipe Restrictor (display for “I” initial registration reason only)” and other similar text.
- a) These changes are necessary to align the BAR-97 EIS Specifications to regulatory changes made in 2013 that eliminated the requirement to perform the fillpipe restrictor test as part of a smog inspection (see OAL File No. 2013-0322-07S).
- 35) In section 3.6.19 5), regarding the fuel cap integrity test, change “all” to “1995 and older model year” vehicles.
- a) This change is necessary to align the BAR-97 EIS Specifications to regulatory changes made in 2013 that limited fuel cap integrity testing to 1976 through 1995 model year vehicles (see OAL File No. 2013-0322-07S).
- 36) In section 3.6.19 6), regarding the Fuel EVAP Test, delete all existing language, “Fuel EVAP Test: The EIS shall prompt for an EVAP functional test on all vehicles, except for vehicles with fuel code D, or fuel type codes P or N that are not bi-fueled, or vehicles without evaporative control systems. Store the results of the test to the *Fuel EVAP Test* field of the test record.” Add extensive new language beginning with “The EIS shall prompt for an LPFET...”.
- a) These changes are necessary to integrate the low pressure fuel evaporative tester (LPFET) with the EIS such that the data generated by low pressure fuel testing is automatically included with the data sent by the EIS to the VID.
- 37) Delete entire section 3.6.19, 7).
- a) These changes are necessary to align the BAR-97 EIS Specifications to regulatory changes made in 2013 that eliminated the requirement to perform the fillpipe restrictor test as part of a smog inspection (see OAL File No. 2013-0322-07S).
- 38) In section 3.6.20 (i), this text was deleted “(as indicated in Appendix C)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.

- 39) In section 3.6.20 (ii), this text was deleted “(as indicated in Appendix C)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 40) In section 3.6.21, this text was deleted “(pursuant to Confidential Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 41) In section 3.6.24, this text was deleted “(see Appendix E)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 42) In section 3.6.27, this text was deleted “See Appendix C for VIR format/information.”
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 43) In section 3.6.27, deleted screen prompt “TEST-ONLY CENTER” and replaced with “REFEREE/STAR-CERTIFIED STATION”.
- a) The Test Only station type has changed to STAR-Certified station type so this change is reflecting this current naming convention. Also adds missing Referee station type that is authorized to inspect gross polluting vehicles.
- 44) In section 3.8 (c), delete “identified in Confidential Appendix C-2”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 45) In section 3.9, second paragraph, delete “FLOPPY DRIVE AND FLOPPY DISK” and replace with “USB DRIVE”.
- a) Requirement changed to allow currently in-use data storage technology.
- 46) In section 3.9, b) Analyzer Precalibration, subsection 9., add “Upon completion of the gas calibration, the gas calibration interval as determined by the analyzer software shall be stored in the calibration record (i.e. 24, 48, or 72 hours)”.
- a) New requirement to record calibration frequency to aid BAR in diagnosis of hardware deterioration.

- 47) In section 3.9, at the end of subsection d) Dynamometer Calibration, add “The following values taken at the completion of the dynamometer calibration shall be written to the calibration record: The dynamometer Bearing Temperature, PAU Load Cell value, Dynamometer Weight Scale Value, Date and Time of the Dynamometer”.
- a) This new requirement to record additional calibration data is needed to support and demonstrate that a dynamometer is properly calibrated.
- 48) In section 3.9, subsection f) delete language related to floppy disk and replace with new language allowing use of USB drive.
- a) This change is needed to reflect changes in technology and allow the use of currently in-use data storage technology.

- 49) In section 3.10, delete language related to floppy disk and replace with new language allowing use of USB drive.
- a) This change is needed to reflect changes in technology and allow the use of currently in-use data storage technology.
- 50) In section 3.10, add “Confirm EIS to EVAP tester communication” and added “There shall be an option on the status page which polls the EVAP tester and confirms that communication between the EIS and the EVAP tester can be achieved.”
- a) This change is needed to ensure that users can diagnose new connectivity between this child device and its parent EIS analyzer.
- 51) In section 3.11, delete subsections (a), (b), and (d).
- a) The requirements in these sections are no longer necessary given the conversion from dialup communication to Internet based communication.
- 52) In section 3.11, new subsection (a), delete “(refer to the Confidential Appendix C-2)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 53) In section 3.14.1, delete State Staff Inspection and QA Inspection sections.
- a) This change is necessary to remove outdated provisions, as these sections pertain to data that is no longer collected through the EIS.
- 54) Delete sections 3.14.1 and 3.14.6, Install New Data Disk requirements.
- a) These requirements are no longer necessary given the change to a USB drive instead of a floppy drive.
- 55) Delete section 3.14.12, State Staff Inspection.
- a) This change is necessary to remove outdated provisions, as these sections pertain to data that is no longer collected through the EIS.
- 56) Delete section 3.14.13, QA Inspection.
- a) This change is necessary to remove outdated provisions, as these sections pertain to data that is no longer collected through the EIS.
- 57) In section 3.15, add “LPFET TEST SETTINGS”.

- a) This change is necessary to include a menu item for users to select new functionality necessary for the LPFET device to transmit data directly to the EIS analyzer.
- 58) In section 3.15.4, replace “primary network phone number...” with “Unique identifier as defined by BAR.”
- a) This change is necessary to support the change to Internet based connection in lieu of traditional phone line connection.
- 59) In section 3.15.4, delete “(Refer to Confidential Appendix C-2 for file structure.)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer eyes only.
- 60) In section 3.15.5, delete “(Refer to Confidential Appendix C-2 for the file structure.)”.
- a) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.
- 61) In section 3.15.7, delete obsolete language referring to usage of floppy disk data storage media and added “update medium”.
- a) This change is needed to reflect changes in technology and allow the use of currently in-use data storage technology.
- 62) Add new section 3.15.8 LPFET TEST SETTINGS.
- a) This change is needed to support station manager connection / disconnection of the LPFET device from the EIS.
- 63) In section 3.16 Perform Software Update, delete provision that the EIS automatically perform a software update upon insertion of data disks, which shall be encrypted by BAR.
- a) This change is necessary to remove outdated requirements for software updates that are now electronically transmitted from a remote server instead of via local floppy or CD media.

- v. Section 4
 - 1) In section 4.3 c) 4., delete “as described in Appendix C-2”.
 - b) In the proposed BAR-97 specification, all references to the appendices were removed since they contain confidential information for BAR-97 manufacturer use only.

- vi. Section 5
 - 1) In section 5.1, add “Emissions Inspection System” and “Inspection and Maintenance”.
 - a) This change is needed to clarify the specifications by defining the acronyms EIS and I/M.
 - 2) In section 5.1.1, delete “at 10240 Systems Parkway, Sacramento, CA”.
 - a) BAR’s old incorrect address was removed. No new address was inserted because the address is now communicated to new vendors through the application process.
 - 3) In section 5.1.1 g), delete “port” and insert “TCP/IP”.
 - a) This change is necessary to support the conversion from dial up to Internet based connection between the EIS analyzer and BAR’s central database.
 - 4) In section 5.1.2, delete “Appendix F” and “contact BAR for submittal package, which”.
 - a) This change is necessary as Appendix F does not exist.
 - 5) In section 5.4.6, delete “4500” and add “5000”, and add “100%” in three places.
 - a) These changes are necessary to match current practice and to provide for a more complete test of the analyzer accuracy. Gas ranges were missing 100% of the gas value which has been used in practice for years.

- vii. Section 6
 - 1) No change has been made to the existing Section 6 other than an update of the revision date to reference the currently proposed version of the Specifications, and to correct the name of the Bureau of Automotive Repair.

2. Amend Section 3340.41 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 “emissions inspection system” and adding “BAR-97 Emissions Inspection System or the OBD Inspection System”.

This change is necessary to clarify that licensed stations are required to provide the motorist with the smog inspection report from both the legacy BAR-97 emissions inspection system and the new OIS.

- b. Amend subsection (b) by deleting “emissions inspection system” and adding “BAR-97 Emissions Inspection System or the OBD Inspection System” in two places.

This change is necessary to clarify licensed stations are prohibited from gaining unauthorized access to or tampering with either the BAR-97 or new OIS equipment.

- c. Amend subsection (c) by deleting “emissions inspection system” and adding “BAR-97 Emissions Inspection System or the OBD Inspection System” in two places.

This change is necessary to extend the prohibition of false entry of vehicle identity, emission control system, or other false information to the new OIS.

- d. Delete entire subsection (e).

This change is necessary to remove outdated language that was superseded by section (f) on January 1, 2013.

- e. Amend subsection (f) by relabeling the subsection letter to (e).

This change moves subsection (f) up to replace the deleted subsection (e).

3. 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. Delete subparagraph (a)(1).

This change is necessary to remove a reference to an older version of the Smog Check Manual that is no longer in effect.

- b. Renumber subsection (2) to subsection (1). In this paragraph, delete “This manual shall become effective on or after January 1, 2013” and add “This manual shall be in effect until subparagraph (2) is implemented.”

This change is necessary to remove the effective date upon which the 2013 Smog Check Manual became effective and to state when the 2013 Smog Check Manual will cease to be effective.

- c. Add proposed subparagraph (2), which incorporates the 2017 Smog Check Manual and states it shall become effective on or after July 1, 2017.

This change is necessary to incorporate the proposed new manual into regulation and to state when it will take effect.

The 2017 Smog Check Manual proposed to be incorporated makes the following changes to the existing Smog Check Manual:

- i. On page 4 Test Requirements Table, footnote (1), added “Dedicated propane and natural gas vehicles over 14,000 lbs. GVWR do not require a Smog Check inspection”.
 - 1) This addition is necessary to clarify that these vehicles do not require inspection as permitted by Health and Safety Code section 44011(a)(6) excepting vehicles that present a prohibitive inspection problem.
- ii. On page 4 Test Requirements Table, footnote (4), added “gasoline category” to clarify that this footnote applies not only gasoline powered vehicles, but also to alternative fueled vehicles listed.
- iii. On page 4 Test Requirements Table, footnote (4), changed “e.g.” to “and vehicles”, and added “vehicles identified by BAR” to clarify that vehicles over 14,000 GVWR and those identified by BAR require a BAR-97 inspection. BAR publishes a Smog Check OBD Reference document that communicates when a BAR-97 inspection is required on vehicles typically requiring a BAR-OIS inspection.
- iv. In section 1.1.1, page 6, deleted “phone/communication line” and added “to the VID”.
 - 1) This change is necessary to allow use of an Internet based communication between the EIS and the VID, instead of the traditional dial up phone line.
- v. In section 1.1.1, page 6, added “EIS and” and deleted “The OIS will not perform off line inspections like the BAR-97 EIS.”
 - 1) This change is necessary to support Internet instead of dialup communication between the EIS and the VID.
- vi. In section 1.1.1, page 6, added “When inspecting a government fleet vehicle, enter the “Government Fleet BAR file number.” Get this number from the government fleet.”

- 1) This fifth bullet was added to call attention to entry of the government fleet file number when inspecting government fleet vehicles. This change is necessary to ensure the government fleet file number is properly entered, because presently, about half the government fleet inspections are lacking this number.
- vii. In section 1.1.1, page 7, correct the section citation to refer to the appropriate section of the Manual.
 - viii. In section 1.2.1, added “meeting certain conditions. See examples below.”, deleted “with a drive axle weight over 5,000lbs”, added “over 8,500 GVWR”, added “between” and “and 9,999”; and added “Heavy duty vehicles with GVWR over 9,999.”
 - 1) This change clarifies when certain vehicles require a loaded mode dynamometer based tailpipe inspection or require a two speed idle test without dynamometer, based on certain weight parameters currently in practice. These vehicles exceed the dynamometer vehicle load capacity.
 - ix. Added section 1.2.4.
 - 1) This change reintroduces accepted procedures that were unnecessarily deleted from an earlier Smog Check Inspection Procedures Manual version for inspecting a vehicle with an exhaust leak.
 - x. In section 1.3.1, added “For more information regarding verification of aftermarket parts, see Appendix C.”
 - 1) This addition is necessary to direct the audience to the newly added Appendix C. Appendix C was added to communicate when certain types of aftermarket parts require verification of Executive Order existence.
 - xi. In section 1.3.1, add “Visual inspection of the fuel cap is considered part of the Fuel Cap Integrity Test detailed in Section 1.4.5, therefore is not required on 1996 and newer model year vehicles.”
 - 1) This addition is necessary to clarify that the fuel cap inspection is not required as part of the visual inspection of the fuel evaporative system on 1996 and newer model year vehicles. Rather, the visual fuel cap inspection is part of the Fuel Cap Integrity Test, which is not required for 1996 and newer model year vehicles.
 - xii. In section 1.3.3, add procedure regarding visual inspection of gasoline-powered hybrid vehicles for liquid fuel leaks.
 - 1) This addition is necessary because a procedure for visual fuel leak inspection is not currently provided in the manual, and the visual

fuel leak inspection is part of the smog inspection of gasoline-powered hybrid vehicles.

- xiii. In section 1.4.6, regarding low pressure fuel evaporative test application, add “Vehicles with single fuel tanks greater than 50 gallon capacity.”
 - 1) This addition is necessary to put stations on notice of the Bureau’s current requirements pertaining to the Low Pressure Fuel Evaporative Test (LPFET). The LPFET specification does not require the unit to work on single vehicle fuel tanks greater than 50 gallons.

- xiv. In section 1.7.0, added “Since the gross polluting vehicle certification restriction does not apply to government fleet vehicles, any station may inspect government fleet vehicles.”
 - 1) This addition informs inspectors of current practice that it is permissible to inspect a government fleet vehicle flagged as a gross polluter because these vehicles do not have certification restrictions.

- xv. In section 1.8.2, regarding equipment requirements, delete requirement for analog phone line connection and add requirement that the EIS must connect to the VID through an Internet connection.
 - 1) Requiring stations to maintain inspection equipment that communicates with the VID using the Internet rather than analog phone lines is necessary to ensure the continued ability of Smog Check stations to transmit data to and receive data from the VID. This transfer of data is essential to the operation of the Smog Check Program.

- xvi. Add Appendix C, regarding inspection of vehicles with aftermarket parts.
 - 1) This addition is necessary to provide procedures for inspectors to verify whether parts installed on a vehicle that affect its emissions and are modified from their original design or performance are exempted pursuant to California Vehicle Code section 27156. This statute prohibits installation of modified parts unless the California Air Resources Board has found the modification does not result in emissions exceeding state and federal standards. The Smog Check Manual already provides that if installed modified parts have not been exempted by ARB, the vehicle shall fail the inspection.

Incorporation by Reference

The proposed change to Title 16, California Code of Regulations (CCR) section 3340.17 will incorporate an updated BAR-97 Emissions Inspection System Specification, dated July 2017.

The proposed change to Title 16, California Code of Regulations (CCR) section 3340.45 will incorporate an updated Smog Check Manual version, dated 2017.

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 documents, they will be available upon request from BAR throughout this rulemaking process and upon adoption of the regulation on BAR's Web site at www.bar.ca.gov.

BUSINESS IMPACT:

Upon adoption of the 2017 BAR-97 EIS Specifications, the new EIS will be developed by manufacturers, certified by BAR, and then made available to stations that test 1999 and older model year vehicles. These include all STAR stations and non-STAR stations that choose to test older vehicles.

Impact on Smog Check Stations

Until the new EIS becomes available, STAR stations and non-STAR stations that choose to test older vehicles will be required, per the Smog Check Manual, to connect their EIS to the VID via the Internet in a manner approved by BAR. Specifically, owners of the newest generation of BAR-97 can acquire a software update from their EIS manufacturer. Older generations of the BAR-97 cannot be updated by software, therefore owners of these systems must acquire a newer model EIS. Stations may lease (rather than own) EIS equipment and can choose to lease the newest generation BAR-97 EIS with the IP communication software update at around the same cost as current service contracts supporting existing equipment.

Smog Check stations will bear a minor economic impact as a result of being required to use an EIS software update provided by an EIS manufacturer or acquire the latest available BAR-97 EIS. The Bureau estimates approximately 1,400 stations currently use the latest available version of the BAR-97 EIS and could acquire a software update at low or no cost. The Bureau estimates approximately 4,200 stations would choose to lease a modern EIS with the IP communication software update, either because they have an older EIS or simply choose to lease an EIS. EIS are leased for about \$450 per month, equivalent to the current annual service cost of \$6,000 per year for the current older systems in place. All stations would save the cost of a dedicated analog phone line of about \$720 per year.

Once the new EIS becomes available, the cost of the new equipment is anticipated to be comparable to the current cost of maintaining EIS equipment given certain cost mitigation measures. Health and Safety Code section 44036(c)(2) states that if Smog Check stations are required to make investments of more than \$10,000 to acquire equipment to meet revised certification standards, the department shall submit recommendations to the Governor and the Legislature for any appropriate mitigation measures such as leases.

While the cost of equipment specified in this proposed action varies by vendor, it would cost in excess of \$10,000 to purchase outright, any additional cost to shops is likely to be significantly (if not entirely) mitigated since equipment manufacturers already plan to lease the equipment to

stations. The rental price of the new equipment is anticipated to be cost competitive with the service contracts for the existing equipment (about \$400 to \$450 per month). This rental price already includes service agreements, so no additional service contracts will be necessary. Manufacturers are able to offer these competitive prices because the new equipment is anticipated to require less maintenance than the existing equipment. Once the 2017 certified EIS becomes mandatory, stations currently using a BAR-97 EIS that connects to the Internet may need to acquire additional updates to be compliant with the 2017 BAR-97 EIS Specifications.

Impact on Emissions Inspection Equipment Manufacturers

Health and Safety Code section 44036(b)(2) requires BAR to charge a fee for the certification testing of inspection equipment. BAR is permitted to charge EIS manufacturers up to \$10,000 to recover time and materials.

EIS manufacturers would benefit from offering equipment meeting the 2017 BAR-97 EIS Specifications, as the equipment will be more reliable, easier to repair, and more easily support future software updates. In turn, there are likely to be fewer customer service calls and improved cost effectiveness associated with the equipment.

ECONOMIC IMPACT ASSESSMENT:

This regulatory proposal will have the following effects:

- It will not create or eliminate jobs within the State of California. The proposed regulation imposes relatively minor requirements and is thus not likely to result in any significant amount of new hiring or layoffs. Further, the Bureau estimates the costs associated with any additional equipment Smog Check stations may be required to purchase would not be so insurmountable as to put any station out of business and cause an increase in unemployment.
- It will not create new business or eliminate existing businesses within the State of California. The proposed regulation does not change the core service provided by Smog Check stations, so it neither creates nor eliminates businesses. Existing businesses will not be eliminated as the net costs imposed on businesses are likely to be minor and absorbable. Indeed, the vast majority of stations will likely experience a net benefit due to decreased downtime (as a result of not dealing with phone line outages) and reduced overhead (as a result of switching from phone line to Internet communication).
- It will not affect the expansion of businesses currently doing business within the State of California. The proposed regulation is not altering products or services in a way that might cause an expansion (or contraction) of businesses.
- This regulatory proposal benefits the health and welfare of California residents. The proposal protects consumers by helping to ensure smog inspections are consistent

statewide.

- This regulatory proposal does not affect worker safety. While the proposal seeks to improve the equipment used by Smog Check stations, these improvements do not affect worker safety.
- This regulatory proposal benefits the state's environment. To the extent the regulation allows for improved monitoring of program performance (for example, through enhanced collection and transfer of smog inspection data) and improved inspections (for example, through clarified requirements concerning aftermarket parts or hybrid vehicle inspections), it will have a positive impact on the state's environment.

SPECIFIC TECHNOLOGY AND EQUIPMENT:

This proposed regulatory action requires Smog Check stations that are already using new or recently upgraded BAR-97 EIS to load software updates for Internet connectivity and enhanced data transmission. Smog Check stations with older EIS will need to replace or upgrade their equipment in order to load the same software updates. Only new and updated EIS will be BAR certified because they have computers and Microsoft windows operating system versions that are capable of accepting the above mentioned Internet connectivity and enhanced data transmission updates.

CONSIDERATION OF ALTERNATIVES:

No reasonable alternative to the regulatory proposal would be either more effective in carrying out the purpose for which the action is proposed or would be as effective or less burdensome to affected private persons and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the law being implemented or made specific.

Set forth below are the alternatives which were considered and the reasons each alternative was rejected:

Alternative 1: BAR considered a complete redesign of the BAR-97 EIS. This redesign would require that all stations buy a new EIS. The procurement of a replacement EIS would require Smog Check stations to make an initial investment of approximately \$83 million (\$15,000 each x 5,551 stations). This alternative was not adopted because it was determined to be too costly for stations.

Alternative 2: BAR considered only requiring a dial-up to IP converter device to facilitate the shift to Internet communication and not requiring additional EIS updates. This alternative was not adopted because the device would still require an EIS software update and reconfiguration of the modem, and would not work for all EIS brands. This option would not fully achieve BAR's goals of improving the accuracy, reliability, and susceptibility to future software updates of Smog Check equipment, nor enhance BAR's ability to take enforcement action in the event of improper inspections.