

BUREAU OF AUTOMOTIVE REPAIR

**INITIAL STATEMENT OF REASONS**

**HEARING DATE:** No hearing has been scheduled.

**SUBJECT MATTER OF THE PROPOSED REGULATIONS:** SMOG CHECK EQUIPMENT SECURITY AND FRAUD PREVENTION

**SECTIONS AFFECTED:** Amend California Code of Regulations Title 16, Division 33, Chapter 1:

Article 5.5:  
Sections 3340.15, 3340.41, and 3340.45

Article 11.1:  
Section 3394.26

**INTRODUCTION / PROBLEM STATEMENT**

The Department of Consumer Affairs, Bureau of Automotive Repair (“Bureau” or “BAR”) is the state agency charged with administration and implementation of the Smog Check Program. The Smog Check Program is designed to reduce air pollution from mobile source passenger vehicles and trucks by requiring that these vehicles meet specific Smog Check inspection standards. Whether vehicles meet the Smog Check inspection standards is determined through an inspection including an emissions test completed at a testing location licensed through the Bureau. The inspections are carried out by Smog Check inspectors who are also licensed through the Bureau.

Smog Check inspectors are required to use one of two different inspection systems depending on the inspected vehicle’s age, weight, and fuel type. The BAR-97 Emissions Inspection System (BAR-97 EIS) is primarily used to measure tailpipe emissions on model year 1999 and older vehicles. The On-Board Diagnostic Inspection System (BAR-OIS) is primarily used to collect electronic emissions control system data from model year 2000 and newer vehicles.

The BAR-97 EIS and the BAR-OIS include hardware and software built by certified vendors to BAR specifications, per H&S 44036 and 16 CCR 3340.17. Inspection equipment that passes BAR certification testing is certified for use by Smog Check stations.

The primary focus of the proposed regulatory language is to add a biometric security solution to a licensed Smog Check inspector’s use of the BAR-97 EIS and BAR-OIS. This will prevent the unauthorized use of the Smog Check inspection equipment and positively connect the inspector to the inspection. Inspectors will be required to have their biometric data collected by BAR via station visit or by visiting a BAR field office. The biometric data will be encrypted immediately upon collection per typical industry best practice in order to protect it from any potential misuse.

The secondary focus of the proposed regulatory language is to add remote access to the BAR-97 EIS and BAR-OIS. This will allow BAR to interrupt an inspection and, after acceptance by the user, remotely interact with the user to investigate suspect activity. Remote access may also be used to assist inspection equipment users.

The changes in this proposal are necessary because current certificate-blocking measures, when coupled with administrative action and license revocations, have been inadequate to deter fraud. Fraudulent inspections are performed by many unlicensed persons working in concert with licensees. These bad actors give an unlicensed person their confidential access code (aka password) allowing use of inspection equipment when they are not present. An unlicensed person has no license to lose if caught by BAR. District attorneys are unwilling to support criminal prosecution of licensees with existing evidence given the remote possibility that a password allowing inspection equipment access could have been lost or stolen. Typical fraud includes the use of a surrogate passing vehicle or other means to modify the emissions or on board diagnostic computer data collected from the vehicle during inspection. This fraud basically turns a failing vehicle into a passing vehicle that can be issued a certificate of compliance as needed to register the vehicle with State of California Department of Motor Vehicles (DMV). Criminal prosecution, which district attorneys are more likely to pursue with proof identifying the perpetrators of these fraudulent inspections (in some cases, by non-licensees), is needed to change this behavior.

The remote access solution supports BAR investigations by allowing BAR to intervene during an inspection for the purpose of communicating with the inspector to verify that fraud is not being committed. Supporting proposed text allows BAR access to stations when inspections are being performed during and outside a station's business hours. Current regulations only permit BAR access during business hours. Some licensed stations fully simulate the inspection behind closed doors after hours and do not permit BAR access to investigate this activity. The proposed ability for BAR to interrupt a suspected inspection, see who is performing the inspection, and verify inspection procedures are followed will prevent improper inspection. Further, the threat of a camera will serve as a deterrent for less-than-honest users.

The proposal will also make it illegal to have on a station's premises an electronic device or data source, also known as an on-board diagnostic (OBD) simulator, that could be used as a substitute for or manipulation of the actual emissions control system data from the vehicle's computer that could otherwise cause the vehicle to fail an inspection. There is no legitimate business need for this type of device in a Smog Check station.

This proposal allows BAR to better protect public health and safety and protect consumers by further preventing fraudulent Smog Check activity. As a result of these regulations, more vehicles with faulty emission controls will be repaired or retired from on-road use. Fewer polluting vehicles directly improves air quality. These proposed regulations will also protect against financial losses resulting from consumers purchasing used cars that have falsely passed a Smog Check inspection only to later find out that the vehicle needs thousands of dollars of repairs in order to pass inspection. These proposed regulations will reduce the need for unlicensed user investigation by BAR since these persons will be unable to use a licensed user's credentials.

### Highlights of the Proposed Changes:

Proposed section 3340.15, General Requirements for Smog Check Stations, would require that stations allow BAR personnel access to the station whenever Smog Check inspections are being performed, even if the inspections occur outside of normal business hours and when the business is otherwise not open to the public. This will improve BAR's ability to address fraudulent inspections that frequently occur outside of normal business hours.

Proposed section 3340.41, Inspection, Test, and Repair Requirements, would require that Smog Check inspectors allow BAR personnel or BAR designated staff access to intervene during the inspection process remotely, via the internet, when prompted by BAR-OIS software. This will give BAR the ability to communicate directly with the inspector, see what the inspector sees, hear what the inspector hears, and ensure the inspection is performed properly. Users failing to permit BAR remote access may be subject to proposed penalties per section 3394.26. There will be a small hardware cost of about \$150 to purchase a web camera off the shelf, or a potential small increase in the monthly lease fee if sold by existing vendors. As typical with all inspection equipment enhancements, BAR will provide internal and external training for its use. BAR can use the feature as desired and when separate fraudulent activity tools send an alert so no full-time person 24/7 support is needed.

The proposal also requires use of a biometric device when using either the BAR-97 EIS or BAR-OIS. The biometric device will prevent password sharing and unauthorized use of the BAR-97 EIS or BAR-OIS and verify the identity of the person performing the inspection. There will be a \$400 per BAR-97 EIS and BAR-OIS hardware cost to purchase the biometric device, or a potential small increase in the monthly lease fee for the entire BAR-97 EIS or BAR-OIS to cover the added biometric hardware cost. As typical with all inspection equipment enhancements, BAR will provide internal and external training for its use. Use of the device is simple and performed by following screen prompts and placing either hand on the sensor. Equipment is available now from online retailers and will also be available soon from current inspection equipment manufacturers. Fujitsu, a Japanese company that makes the palm vein reader biometric devices and software, has ensured BAR that 8,000 pieces will be available for purchase given a 120-day lead time.

In order to enroll inspectors in a manageable fashion and to lessen the economic impact of an inspector leaving the station to enroll, BAR will offer optional onsite enrollment before the mandatory enrollment date in lieu of the inspector visiting the BAR field office. After receiving a request from a Smog Check station, BAR will visit the station and provide onsite enrollment of inspectors who are able to meet all enrollment requirements. BAR will not visit a station to provide onsite enrollment more than one time. After the enrollment window is closed, BAR would require biometric use at all stations, and would require licensees visit a BAR field office to enroll prior to performing inspections. Inspectors failing to enroll will be unable to perform inspections.

In addition, the proposal adds text to make it a violation to have on the premises, at a Smog Check station, an electronic device or data source used for changing or replacing a vehicle's data. Electronic data sources are used to generate OBD inspection or other data in lieu of using an actual vehicle. These devices have no legitimate business purpose in a Smog Check station. Fines added to section 3394.26 in the amount of \$1,000 and \$5,000 may be assessed.

Section 3340.45, Smog Check Manual, incorporates a revised Smog Check Manual. The Smog Check Manual communicates inspection procedures and equipment requirements to Smog Check inspectors and stations. The proposed revisions to the Smog Check Manual are necessary to communicate new equipment and procedural requirements to stations and inspectors. The Smog Check Manual requires a camera and biometric device for every BAR-97 EIS and BAR-OIS and lists the required model number for biometric equipment, and minimum performance requirements for web camera. BAR will provide stations biometric reseller contact information when inventory is ready.

Section 3394.26, Administrative Fine Amounts, was amended to broaden the administrative fines to cover the substantive prescriptions and restrictions of this proposal. Specifically, administrative fines were added that BAR may apply when inspectors do not permit BAR remote access to inspection equipment, and/or have on the premises an electronic data source.

## **SPECIFIC PURPOSE OF THE REGULATORY PROPOSAL**

### **I. CHANGES THROUGHOUT**

- A. Capitalize “Bureau” throughout – minor grammatical change.

This change is non-substantive because it is a grammatical change as part of an effort to “[revise] structure, syntax, cross-reference, grammar, or punctuation” within the meaning of Title 1, California Code of Regulations section 100(a)(4).

“Bureau” is a term defined in California Code of Regulations section 3340.1 and inconsistent capitalization may result in misinterpretation of the lower case “bureau”.

### **II. AMEND SECTION 3340.15. GENERAL REQUIREMENTS FOR SMOG CHECK STATIONS**

- A. In subsection (a), delete “during the licensing inspection”.

The Bureau’s approval of the work area of the station doesn’t happen during the licensing inspection. The Bureau conducts an inspection and then determines if the work area is approved. Removing this text makes the regulation more clear and easy to understand.

- B. Amend subsection (g): “A Smog Check station shall afford the ~~b~~Bureau or its representative reasonable access during normal business hours, ~~to the station for the bureau’s quality assurance efforts to evaluate the effectiveness of tests and/or repairs made to vehicles subject to the Smog Check Program. and any time inspections and/or repairs are being performed outside of normal business hours, for the purpose of performing an examination of the station pursuant to Health and Safety Code section 44035, subdivision (b).~~”

Current regulation states that the Bureau is allowed access to the station only during normal business hours and fails to allow access to BAR personnel outside of regular business hours. BAR has experienced stations refusing BAR field representative access after business hours when BAR has evidence that fraudulent inspections are being

performed. Without this expressed authority, BAR may not inspect stations during the hours in which certain stations are most inclined and have proven to commit fraud.

The text “to the station for the bureau's quality assurance efforts to evaluate the effectiveness of tests and/or repairs made to vehicles subject to the Smog Check Program.” was deleted because BAR needs to access any site at any time when inspections are being performed and not only during a routine quality assurance visit or to only evaluate the effectiveness of tests. The Bureau’s mission of protection requires monitoring of equipment used for inspections whenever those inspections occur, in order to prevent fraudulent use and harm to the public at large through polluting vehicles or misrepresentation in the sale of a vehicle to an unsuspecting buyer. The Bureau has observed cases in which bad actors have committed fraudulent activity relating to emissions testing at locations other than the address on record.

The inspection equipment is internet connected, so could be used to perform inspections at locations other than the address on record. Adding the reference to Health and Safety Code Section 44035(b), which states “The department or its representatives, including quality assurance inspectors, shall be provided access to licensed stations for the purpose of examining property, station equipment, repair orders, emissions equipment maintenance records, and any emission inspection items, as defined by the department” shows BAR has the authority to access a station for any reason defined by the department.

The proposed revision specifies BAR’s clear authority to enter a station or remotely access the station’s inspection equipment anytime the station is performing inspections.

### **III. AMEND SECTION 3340.41. INSPECTION, TEST, AND REPAIR REQUIREMENTS**

- A. Add subsection (f): “Participation in BAR’s biometric data system is an eligibility requirement for Smog Check Inspectors. Smog Check Inspectors shall have their biometric data collected and identity verified at a BAR field office or during a BAR station visit prior to biometric use during inspections. For purposes of this section, “biometric data” means data collected from a scan of the licensee’s hand(s). During initial biometric data collection and annually, Inspectors shall review the Notice on Collection of Personal Biometric Information and Its Use (New 1/2021) and the Biometric Data Collection Consent Statement (New 1/2021), hereby incorporated by reference, and agree to their terms. When prompted by the EIS or OIS software, the licensee shall authenticate their identity for purposes of authorizing their access to the EIS or OIS using a biometric device model specified in section 1.8.0 of the Smog Check Manual described in section 3340.45. Upon proven incompatibility with the biometric system, BAR may allow an access to the BAR-97 EIS or BAR-OIS using inspector's license number and BAR assigned access code.”

Criminal prosecution of fraud requires positive identification of the accused beyond a reasonable doubt. The Bureau believes biometric data supports proving identity in a criminal action; however, the ultimate test of the merits of the use of biometric data will be in court. Most of the recent fraud cases prosecuted by BAR were based on evidence collected through the Vehicle Information Database, which is the Smog Check data repository. In these cases, the only information linking the inspector to the fraudulent

inspection is the username and password entered at the time of inspection. The current username and password process by itself is not enough to conclusively identify who performed the fraudulent inspection. When the perpetrator cannot be positively identified, the case must proceed administratively rather than criminally. Unfortunately, administrative disciplinary cases fail to discourage illegal behavior for many operators without the deterrence of a criminal case. Therefore, BAR needs a more conclusive means of establishing the identity of the individuals performing fraudulent Smog Check inspections. Without the deterrent of criminal prosecution, many inspectors will continue to perform fraudulent inspections. When fraudulent inspections occur, vehicles that would not pass the inspection end up registered and pollute, or end up getting sold to an unsuspecting motorist.

The proposed revision to subdivision (f) begins with a clear statement that participation in BAR's biometric data system is an eligibility requirement for Smog Check Inspectors. While the remaining text of subdivision (f) implies that participation is required, a clear statement of this requirement improves the readability of this subdivision for licensees. The Bureau has concluded required participation as necessary to ensure that the Bureau may identify individual performing the Smog Check. If the Bureau established an elective participation standard, Inspectors would be able to decline participation and avoid detection or identification by the Bureau.

The revision also requires that BAR positively identify inspectors when enrolling in biometric use and requires biometric inspector verification before they can access the inspection equipment and issue certificates of Smog Check compliance. Biometric identification will improve security by preventing unlicensed users from performing inspections. Biometrics are body measurements and calculations related to human characteristics; however, in this section BAR is clarifying that BAR will only collect data from a scan of the licensees' hand(s).

Once regulations are effective, BAR would require inspectors visit a BAR field office for biometric enrollment and, where resources are available, continue to offer scheduled onsite station enrollment. At each of BAR's twelve field offices, BAR representatives will verify the enrolling inspectors' identity by requiring government-issued ID as proof. The inspector will scan their left and right hands to enroll. A photo will be taken of the inspector and will be used to update the last photo on record. Later, when performing an inspection, the inspector will bar code scan their BAR-issued inspector badge or manually enter their inspector license number and scan either hand to verify they are the person who matches the license. A scan will be required at the beginning and end of inspection. If the hand does not match the licensed inspector badge, the inspection will not be allowed to continue.

However, to ensure qualified users who are incompatible with the biometric data system are able to use the emissions testing system, this proposed rulemaking allows for the use of a traditional password-based login. Incompatibility may, for example, be caused by poor blood flow to the extremities due to diabetes or other issues, lack of hands, or extremely heavy callouses that prevent a biometric device from reading the inspector's palm.

This revision also requires, during initial biometric data collection, Inspectors review and agree to the terms of the 'Notice on Collection of Personal Biometric Information and Its Use' and the 'Biometric Data Collection Consent Statement.' These documents are incorporated by reference and are detailed below.

- B. The Notice on Collection of Personal Biometric Information (01/2021) is incorporated by reference and is a new form. The Notice on Collection informs the Inspector that BAR uses the collected information to identify licensed inspectors, permit their use of inspection equipment, and to enforce licensing standards. The Notice on Collection will be displayed to Inspectors at the time of enrollment via BAR's biometric enrollment software.

Civil Code section 1798 requires collections of personally identifying information to be made in compliance with a series of requirements. The first sentence of this form informs the Inspector the data is collected under the authority of Business and Professions Code sections 30, 9884, and 9887.2, Labor Code section 432.7, Civil Code sections 1798 *et seq* (the Information Practices Act), and California Code of Regulations section 3306. This information is inserted to clarify the legal bases and limitations the collection and use of the data is subject to. Specifically, this disclosure is designed to comply with Civil Code section 1798(c), "[t]he authority, whether granted by statute, regulation, or executive order which authorizes maintenance of the information." The specific rationales for compliance are described below.

Civil Code section 1798(a) requires the name of the agency and the division within the agency that is requesting the information. This requirement is met with the portion of the Notice on Collection stating "the Bureau of Automotive Repair of the Department of Consumer Affairs collects."

Civil Code section 1798(b) requires "the title, business address, and telephone number of the agency official who is responsible for the system of records and who shall, upon request, inform an individual regarding the location of his or her records and the categories of any persons who use the information in those records." This requirement is met with the final paragraph of the form, entitled "contact information," which sets out not only the contact information for questions about the Notice on Collection and to access records, but also the address and contact information of the Bureau for issues regarding the Public Records Act requests, the Department's Privacy Policy, and the Information Practices Act. This disclosure covers the strict requirements of the Information Practices Act but also provides enrollees with a variety of options for obtaining information from the Bureau, the Department of Consumer Affairs, and the Office of the Attorney General on issues directly related to the collection of the data, or of broader concerns related to records requests and public inquiries.

Civil Code section 1798(c) requires "the authority, whether granted by statute, regulation, or executive order which authorizes the maintenance of the information," which has been described above. This information is listed in the first sentence of the form: BPC section 30 outlines the collection and use of Taxpayer Identification Numbers and Social Security Numbers among other pieces of personally identifying information, and describes limitations on state agencies regarding the transmission of that information to third parties.

BPC section 9882 broadly describes the authority of the Bureau to implement such regulations as are necessary to carry out the purposes of the chapter in which it is written. This includes statutes such as Business and Professions Code section 9882.6 defining, among other things, the broad enforcement efforts of the Bureau, including the Motor Vehicle Inspection Program as listed commencing with section 44000 of the Health and Safety Code.

To that end, Health and Safety Code section 44002 gives the Bureau “sole and exclusive authority within the state for developing and implementing the motor vehicle inspection program...” This includes, via a cross-reference in section 44002, all authority afforded to the Bureau under BPC section 9882. Health and Safety Code section 44030 establishes the authority for the Bureau to develop standards for smog check stations including but not limited to the “use of computerized and tamper-resistant testing equipment.” BPC section 44045.5 establishes the authority of the Bureau to regulate the requirements of licensure necessary to “meet the applicable emission reduction performance standards...” and separately allows the Bureau to create “more than one category of licensure” via regulation.

Civil Code section 1798(d) requires “With respect to each item of information, whether submission of such information is mandatory or voluntary.” The Notice on Collection satisfies this requirement with a subheading reading “Mandatory Collection” with a further statement that the information is both mandatory and that no equipment will be allowed without the provision of all requested information. Civil Code section 1798(e) requires stating “the consequences, if any, of not providing all or any part of the requested information.” This is satisfied by the advisory that “The Bureau of Automotive Repair will not permit inspection equipment use unless you provide all requested information.”

Civil Code section 1798(f) requires the form to include “the principal purpose or purposes within the agency for which the information is to be used.” This is satisfied by the statement in the first paragraph indicating “The Bureau of Automotive Repair uses this information principally to identify licensed inspectors and/or permit their use of inspection equipment and enforce licensing standards set by law and regulation.”

Civil Code section 1798(g) requires a statement of “Any known or foreseeable disclosures which may be made of the information pursuant to subdivision (e) or (f) of Section 1798.24.” This is stated via the text in the Notice on Collection reading:

#### POSSIBLE DISCLOSURE OF PERSONAL INFORMATION

The Bureau of Automotive Repair makes every effort to protect the personal information you provide us. The information you provide, however, may be disclosed in the following circumstances: In response to a Public Records Act (PRA) request (Government Code section 6250 et seq., as allowed by the Information Practices Act (Civil Code section 1798 et seq.);

- To another government agency as required by State or Federal law; or

- In response to a court or administrative order, a subpoena, or a search warrant.

Finally, Civil Code section 1798(h) requires the form to state “the individual’s right of access to records containing personal information which are maintained by the agency.” This is accomplished through the part of the form entitled “access to personal information.” The form states “You may review the records maintained by the Bureau of Automotive Repair that contain your personal information, as permitted by the Information Practices Act. See below for contact information.” The Inspector may review the records maintained by BAR that relates to their personal information. In addition, under the Access to Information and Contact Information section of the form, the form states “Individuals have the right to access records containing personal information which are maintained by the Bureau of Automotive Repair.” This also notifies the individual of their ability to access records.

- C. Beyond the Notice on Collection described in the preceding section of this Initial Statement, the Bureau is proposing to add an advisory entitled “Biometric Data Collection Consent Statement” via incorporation by reference.

The purpose of the Biometric Data Collection Consent Statement is to confirm that the Inspector understands and agrees that BAR shall collect, retain, handle, and process personal information in accordance with the Notice for Inspector inspection access, verification, and authentication purposes, and that if the Inspector does not provide the requested information, the Inspector will not be permitted to use inspection equipment to perform Smog Check inspections. The Inspector further agrees that this Consent Statement does not guarantee their licensure with DCA and that successful biometric data collection shall be considered as consent to the agreement.

The Bureau intends the two advisories be used in conjunction at the time of enrollment in the data system to advise and obtain consent from participants.

The first sentence of this form refers the enrollee to the Notice on Collection for statements about the collection, retention, handling, and usage of information. This further ensures that the Bureau not only complies with the Information Practices Act requiring notices to participants about the collection of data, but increases the probability an enrollee will read the information by reminding them of the existence of the Notice on Collection.

The second statement both complies with Civil Code section 1798(e) regarding the consequences of failure to provide the requested information, but further educates the enrollee on the practical consequences of agreeing to participate or not participate in the program. While the information on the Notice on Collection describes the consequence of not providing the information itself, this advisory informs the participant that failure to consent to participation itself will prevent the ability to complete smog check inspections. Both refusal to participate and willing but incomplete participation will lead to not being able to complete inspections. By clarifying this distinction, the Bureau will avoid the possibility that refusal to participate will be construed as a way to get around the participation requirement. Eligibility to complete Smog Check inspections is preconditioned on participation in the biometric data system.

The statement “I further understand that this authorization and consent does not guarantee my licensure with the Department of Consumer Affairs” clarifies that the biometric data system is discrete from the initial application process. The statement “I hereby provide my explicit consent for BAR to collect, retain, handle and otherwise process such biometric information for inspection access, verification and authentication purposes” informs the participant of the significance of the form – to provide approval for the Bureau to use the information to be collected for the stated purpose. Again, the Bureau is endeavoring to be as clear as it can about its intentions for the collected data. Having a separate consent agreement for the collection and use will ensure the regulated public is aware of the exact purposes of the system.

Finally, the statement “Successful biometric data collection shall be considered as consent to this agreement” is designed to inform the participant that 1) no formal signature is being collected as part of the enrollment process and 2) the biometric data itself is construed in the context of its collection as evidence of assent to the data collection agreement. As a practical matter, this will allow the Bureau to use the Biometric Data Collection Consent Statement electronically, in environments where signatures are not separately collected or stored. Instead, this Biometric Data Collection Consent Statement will be presented to the participant electronically during the data collection process. Should the participant not consent, the data will not be collected.

- D. Add subsection (g): “When prompted by the EIS or OIS software, the BAR licensee shall permit BAR and/or a BAR designee remote access to view and record audio, video, pictures, and text relating to the inspection.”

The latest generation of BAR Smog Check inspection equipment transmits data via the internet as opposed to over phone lines. With phone lines, BAR could determine where an inspection occurred; however, with internet-based inspections, BAR cannot conclusively determine the location of an inspection. As a result, stations interested in committing fraud are relocating to undisclosed locations, depriving BAR of its ability to drop-in on stations to collect evidence, identify the perpetrators, and prevent fraudulent activity.

BAR proposes adding the ability for two-way audio and video communications so that BAR or BAR’s designee (such as one of BAR’s contracted Referee facilities), can intervene or assist in intervening in real-time with a Smog Check inspection where fraud or an improper inspection is suspected. The proposed revision adds remote access functionality to the BAR-97 EIS and to the BAR-OIS. The remote access has not been built yet and would be required at a deferred implementation date after regulations are adopted and after biometric equipment is required. The remote access functionality is envisioned to be built into the BAR-97 EIS or BAR-OIS software or a separate user-friendly application. The goal is to implement easy to use functionality to minimize user impact and require minimal training. When BAR determines the need for remote access, the user would be prompted to allow BAR to see their screen and view their webcam video and hear audio from the camera’s microphone. BAR would be unable to enter Smog Check data since that is the responsibility of the licensed inspector.

Remote access includes the ability to view and record video, hear and record audio, and

capture still images, inspection software screens, and text conversation. Stations would need to buy and plug in their own web camera at a cost of about \$150. The BAR-OIS software would be free to stations since BAR's contractor, currently OnCore Consulting LLC, develops these changes for BAR under the Cal-VIS maintenance contract. The amount the Smog Check stations may need to pay the BAR-97 EIS equipment manufacturers for a software update depends on the design and complexity of the solution and whether or not they own or lease the inspection equipment. Prior software updates for the majority of BAR-97 EIS which are leased have been provided to stations at no or minor increase in monthly fee. Stations owning equipment could incur a several hundred-dollar software update cost depending on the actual implementation.

A remote access solution, including audio, video, images, screen shots, and text communication, will help determine if there is intent to commit fraud, if a mistake occurred, or if the inspector requires remedial training. Remote access provides BAR the ability to interact with inspectors to determine the cause of unexpected inspection results. These changes are necessary to discourage and prevent fraud from occurring.

Recording during remote access will provide valuable evidence supporting both license revocation and criminal action when fraud is committed. These recordings may also be useful in showing that no fraud has occurred, or in clarifying the identity of suspected parties.

Remote access will allow BAR to interact with stations in a safer "socially distant" and "out of harm's way" fashion. In addition, by eliminating travel time to visit stations, remote access will improve BAR communication efficiency and effectiveness when assisting inspectors with technical issues or providing guidance.

- E. Add subsection (h): "No licensed station shall have in the approved testing area at any time any electronic device or software capable of simulating the OBD data stream from a vehicle or manipulating OBD VIN, calibration identification, calibration verification number, MIL-status, readiness, or diagnostic trouble codes collected from a vehicle during a Smog Check Inspection."

For most 1996 and newer vehicles, the most critical portion of the Smog Check inspection is an electronic scan of the vehicle's emission control computer system, which self-identifies vehicle emission control system malfunctions. This is called the On Board Diagnostic (OBD) system. During the past several years, there has been a rapid proliferation of electronic devices designed to manipulate or outright falsify data scanned from the vehicle in order to get a malfunctioning vehicle to pass the Smog Check inspection. Under current laws and regulations, there is nothing that specifically prohibits Smog Check stations from having such a device on the premises, even though there is no reason aside from perpetrating fraud for a station to have one. Consequently, to take administrative and/or criminal action based on use of an OBD simulator, BAR must rely on the perpetrator voluntarily surrendering the device to a BAR investigator who catches that person using it to perform a fraudulent inspection(s), or a third party search warrant to seize the device and compare the station's inspection results to Smog Check database records.

Smog Check stations must not be allowed to possess devices or software capable of falsifying or manipulating Smog Check data. This proposal will further discourage stations to have such a device on site and curtail the distribution of such devices. In turn, making these devices a violation to possess on site at a Smog Check station will increase the likelihood that vehicles will receive an accurate Smog Check inspection. Because the public is not authorized in the testing area of Smog Check stations, there is no possibility that this will negatively affect customers or other members of the public.

- F. Add subsections (i)(1)-(4): “The procedure for the enrollment process is as follows:” This addition is made to serve as a preamble to describe the below enrollment process for the new biometric system.
- G. Add subdivision (i)(1): “Enrollment at a BAR field office or a BAR licensed facility for current licensees shall occur on or after the effective date of the regulation. BAR will inform Smog Check Inspectors of the mandatory enrollment requirement and date at least 30 days prior to the mandatory enrollment date. The mandatory enrollment date shall be at least 30 calendar days after the effective date of the regulation. Smog Check Inspectors licensed after the effective date of the regulation shall enroll prior to performing any Smog Check inspection before or with the issuance of an access code pursuant to Section 1.1.0 of the Smog Check Manual described in section 3340.45.”

In order to allow time for Smog Check Inspectors who are licensed prior to the effective regulation date to enroll BAR’s biometric data system, BAR will notify Inspectors via a BAR ET Blast and on BAR’s website at least 30 days prior to the mandatory enrollment date, which will be at least 30 days after the effective date of these proposed regulations. Thirty days is sufficient time for Inspectors to go to a field office to complete enrollment, which is expected to take approximately 15 minutes per inspector. The BAR ET Blast is an electronically transmitted message, similar to an email, from BAR to BAR-OIS and BAR-97 users. These messages, approved by BAR’s Chief, are also posted to BAR’s public website and emailed to stakeholders including but not limited to: the Smog Check industry, equipment manufacturers, BAR field offices, BAR Engineering, DCA’s Consumer Information Center (CIC), BAR Advisory Group members, and California Air Resources Board. Most frequent use of ET Blasts includes announcement of: Smog Check program changes and updates to inspection equipment, software and inspection procedures.

Inspectors who become licensed after the effective date of the regulation shall enroll prior to performing smog check inspections. Prior to performing inspections, all licensees are currently required to go to a field office prior to performing inspections. The enrollment may be completed when they go the field office where previously they would have only received their access number. This visit to the field office will not require any more time or visits to a field office than previously required.

- H. Add subdivision (i)(2): BAR will verify inspector identity using two forms of identification. One must be a valid, government-issued photo identification, other than a BAR issued license badge (e.g., driver license, passport, or military identification). The second identification must have the enrollee’s signature and legal name (e.g., social security card or credit card). If the enrollee is licensed with a name other than the enrollee’s legal

name, the enrollee shall correct the name with BAR to match the legal name prior to enrolling.

Licensed enrollees shall also provide their inspector license number and the enrollee's BAR issued inspector badge if received from BAR prior to enrollment."

The BAR Smog Check License application requires a "government photo ID issuing authority, document title, and number (example: California Driver License A123456)". This shall be verified at a field office when the licensee receives their access code. In addition to the identification supplied on the application, in order to verify the correct identity, to ensure it is the correct person, BAR requests a second form of identification at the time of enrollment. The name used on the application must match the enrollee's legal name.

A second form of identification is required to match the current practice if verifying identity for inspector license examination candidates. The following quote was copied from BAR's inspector license application form titled "Inspector/Tech App 1A (03/2014)": "This form may be incorporated by reference to exam/licensing regulation "You must bring two forms of ID to the examination. One must be a valid, government-issued photo ID (e.g., driver license, passport, or military). The second ID must have your signature and legal name (e.g., social security card, credit card, etc.). The name on this application must match the name on all identification you bring to the examination."

The Bureau is requiring the enrollee to provide their inspector license and the enrollee's BAR issued inspector badge if received to speed up data entry when BAR begins the enrollment process. BAR's enrollment software prompts the BAR user to scan the inspector's badge or enter their license number. If neither are available, BAR will need to compare the licensed inspector's identification documents against existing licensee information stored in BAR's licensing database.

- I. Add subdivision (i)(3): Enrollees shall review and agree to the Notice on Collection of Personal Biometric Information and Its Use (New 1/2021) and the Biometric Data Collection Consent Statement (New 1/2021)."

This is discussed in this ISOR, beginning on page 8, in sections III (B) and (C). The requirement is reproduced in this subdivision to clarify that the enrollment process itself contains a step requiring the enrollee to review the forms. This ensures the enrollee is made aware of the Notice and the Consent Statement prior to the data actually being collected. This will guarantee the enrollee is aware of their decision prior to providing the biometric data.

- J. Add subdivision (i)(4): Information collected during enrollment will include a photograph of the enrollee's face and a biometric scan of the enrollee's hand(s)."

The photograph is necessary to update the photograph used by BAR and the biometric scan is necessary for the individual biometric identification.

#### IV. AMEND SECTION 3340.45. SMOG CHECK MANUAL

- A. Amend section 3340.45: “All Smog Check inspections shall be performed in accordance with requirements and procedures prescribed in the Smog Check Manual, dated January 2021, which is hereby incorporated by reference.”

This removes reference to outdated Smog Check Manuals. Failing to delete the outdated Manuals would cause confusion given the replacement of the November 2017 Smog Check Manual. These modifications provide clarity and avoid confusion.

- B. The Smog Check Manual dated November 2017, incorporated by reference to California Code of Regulations, Title 16, section 3340.45 (a)(2) will be amended to a January 2021 version. The Smog Check Manual communicates inspection procedures and equipment requirements to Smog Check inspectors and stations. The proposed revisions to the Smog Check Manual are necessary to communicate new equipment and procedural requirements to stations and inspectors. In addition to non-substantive formatting changes for ADA compliance, the following changes were made:

1. On the cover page and in the footer, the document version date was changed from “November 2017” to “January 2021”.

This change is necessary to identify the updated version.

2. Page 5, section 1.1.0 Inspector Access:

- a. Delete, “both” and “access code provide” and replace with “use of a biometric device, as specified in the Required Equipment/Materials table in Section 1.8.0, provides...”

This is necessary because with the proposed regulations, the use of a biometric device will be required, in lieu of the access code for almost all inspectors. BAR may still allow use of the traditional license number and access code on an individual case by case basis upon proven incompatibility with the biometric equipment at the time of enrollment. Incompatibility may include a permanent physical attribute or medical condition that prevents the biometric reader from reading both of the inspector’s hands.

- b. Add, “BAR or a BAR authorized representative shall use a biometric device to collect inspector biometric data and shall verify the identity using a government-issued ID of an applicant or licensee for purposes of authorizing access to perform inspections using the EIS or OIS.”

This is necessary to enroll the user (inspector) in the biometric solution and verify that the correct person is linked to the correct licensed user access credentials, with user identity verified by BAR. It is envisioned that a BAR authorized representative, such as a licensing exam contractor, could perform this requirement at some future date. It is BAR’s current

practice to accept a government-issued ID when issuing inspector licenses.

- c. Replace “The” with “An” to improve readability.
- d. Add “licensed”, as only licensed inspectors receive access codes.
- e. Add “Upon proven incompatibility with the biometric system, BAR may allow an access to the BAR-97 EIS or BAR-OIS using inspector’s license number and BAR assigned access code.”

This change is necessary to inform users that if needed, BAR will permit traditional license number and access code use in lieu of the mandated biometric device. An example of incompatibility may be that the inspector has poor diabetic blood flow or extremely heavy callouses and the biometric device cannot read the inspector’s palm.

- f. Replace “Each” with “In such cases, each” to improve readability. Adding ‘in such cases’ indicates that the context of the sentence is those cases in which enrollment in the biometric system cannot be accomplished.
3. Page 6, section 1.1.1 Vehicle Identification Information, BAR-97/OIS Entries table:

- a. Footnote numbers “1,2,3,4” were changed to “7,8,9,10”.

This change promotes the sequential numbering of footnotes throughout the Smog Check Manual. No footnote content was changed.

4. Page 21, section 1.5.1 Vehicle Passes Smog Check

- a. Delete “Certificate of Compliance”. This section does not need two headings, “Vehicle Passes Smog Check” covers the section. The deletion cleans up the manual by removing unnecessary text.

5. Page 24, section 1.7.4 Virtual Hands-On Inspection:

- a. Add the entire section, including the title “Virtual Hands-On Inspection” and the language “BAR or its designee may remotely interrupt a BAR-97 EIS or BAR-OIS inspection and ask the user to permit access to the computer and web camera, as specified in the Required Equipment/Materials table in Section 1.8.0, to perform a virtual hands-on inspection for purposes of observing the inspection process. During the virtual hands-on inspection, BAR may record screen shots, still images, video, text chat, and audio.”

This addition requires users to permit BAR access to their camera, screen, and microphone (part of the camera) upon BAR’s request and informs users that BAR may record video, still images, screen shots, audio, and text conversation during the authorized remote access

session. This will allow BAR to identify fraudulent activity more easily, while narrowly tailoring this feature to when the testing device is in use, and in circumstances where the user is prompted to allow access. The user will be aware that the access is occurring.

6. Page 26 and 27, section 1.8.0 Equipment and Reference Materials, Required Equipment/Materials table:

- a. Footnote numbers “1,2,3,4,5,6” were changed to “11,12,13,14,15,16”.

This change promotes the sequential numbering of footnotes throughout the Smog Check Manual. No footnote content was changed.

7. Page 26, section 1.8.0 Required Equipment/Materials:

- a. Delete, “BAR Certified Equipment:” and add, “OBD Inspection System (OIS) with hardware and software necessary to conduct OBD inspections.”

The OIS is not a BAR certified item so the BAR Certified Equipment designation was removed.

8. Page 26, section 1.8.0 Required Equipment/Materials:

- a. Add, “BAR Certified Equipment: Data Acquisition Device (DAD) with hardware and software necessary to conduct OIS inspections.”

The DAD is a BAR certified item, so it was placed in its own new row in the table, separately from the OIS.

9. Page 26, section 1.8.0 Required Equipment/Materials:

- a. Add, “Web Camera: For every OIS and EIS, an external web camera hardwired to the OIS computer that meets the following requirements:

autofocus, automatic light correction, built-in noise canceling microphone, USB 3.0 compliant, full HD (1920 x 1080 pixels) video recording and video calling at a minimum of 30 frames per second (FPS), H.264 video compression. Note: a single USB 3.0 extension cable is permitted to extend the camera’s cable up to an additional 15 feet.”

The camera requirements were written as they are to ensure a device of sufficient quality is used. There are many inexpensive and poorly performing web cameras on the market and without minimum performance requirements, stations might use them to save money and to prevent BAR from experiencing quality audio and video. The listed requirements are based on a Logitech C925 and C930 camera that is available for about \$150 from many retailers. BAR obtained and tested this camera and it performed well under conditions typical of a shop environment.

The requirements were written generically to allow use of other camera brands and models as long as they meet the same requirements. Autofocus is necessary so the camera will adjust to properly show detail. Low light

capability is necessary so the camera will provide a usable image in poor lighting conditions, like a view of the vehicle's under dash data connector. Built in noise canceling microphone is necessary to reduce ambient noise typical in a shop environment allowing clearer audio communication with BAR. USB 3.0 compliant is necessary so the camera will work with currently available computers typically used in BAR-OIS systems. The full HD (1920 x 1080) at 30 frames per second is necessary to ensure a high-quality video image capable of displaying detail and to ensure a minimum screen rate to show motion. The H.264 video compression is necessary so the video signal can be transmitted to BAR over the station's existing internet connection. Without it, the station may have to upgrade to a faster internet connection at added cost. The extension cable note is included to make the hardwired camera able to reach underhood or interior vehicle items as requested by BAR since the camera is required to be hardwired. A hardwire connection is required for reliability in a shop environment where electronic interference is commonplace.

- b. Add "√", "√", "√", "√" to the web camera row. To indicate all four Smog Check station types (STAR Test Only, Test Only, STAR Test and Repair, and Test and Repair) must have a web camera.

The Bureau has concluded through its experience in enforcement actions that requiring all four types of stations to have a web camera will ensure maximum fraud prevention. It is also more fair to require all stations to possess the item, as opposed to picking only STAR stations, or only Test and Repair Stations. The purpose of the web camera is to ensure the Bureau can engage in real-time enforcement efforts across the licensing categories; the addition of these checks signifies that intention to the reader.

- c. Add, "Biometric Device: For every OIS and EIS, Fujitsu palm vein scanner sensor model FAT13FPS01 with 2 meter long USB 2.0 (A) Male to (B) Micro - USB Cable."

The Fujitsu brand, model FAT13FPS01 was chosen as the best biometric technology given its intended use and environment. BAR evaluated several technologies and found the palm vein reader to be a robust solution. The model FAT13FPS01 has a higher operating temperature than other Fujitsu models, making it more suitable in a hot station's operating environment. See the Specific Technologies or Equipment section below for more detail explaining the choice of this brand and model.

- d. Add "√", "√", "√", "√" to the biometric device row. To indicate all four Smog Check station types (STAR Test Only, Test Only, STAR Test and Repair, and Test and Repair) must have a biometric device.

The Bureau has concluded through its experience in enforcement actions that requiring all four types of stations to have a biometric device will ensure maximum fraud prevention. It is also more fair to require all stations to possess the item, as opposed to picking only STAR stations, or only Test and

Repair Stations. The purpose of the biometric device is to improve identification across the entire motor vehicle inspection program; the addition of these checks signifies that intention to the reader.

**V. AMEND SECTION 3394.26. ADMINISTRATIVE FINE AMOUNTS**

- A. Amend section 3394.26(b) to add sections 3340.41(g) and (h) to the Administrative Fine Schedule and delete section 3340.41(f).

§ 3340.41(c)	\$1000	\$5000
§ 3340.41(d)	\$1000	\$5000
<del>§ 3340.41(f)</del>	<del>\$1000</del>	<del>\$5000</del>
<u>§ 3340.41(g)</u>	<u>\$1000</u>	<u>\$5000</u>
<u>§ 3340.41(h)</u>	<u>\$1000</u>	<u>\$5000</u>
§ 3340.41.3	\$250	\$1000

Without administrative fines for the proposed requirements, Smog Check inspection equipment users are less likely to comply. The proposed revision to section 3394.26(b) adds minimum and maximum administrative fine amounts to coincide with the proposed requirement for remote access in section 3340.41(g) and to coincide with the prohibitions on possession and use of an electronic data manipulation device in section 3340.41(h).

The amounts of \$1000 and \$5000 for 3340.41(g) and (h) were selected based on the existing fine amount in 3340.41(c). BAR considers entering falsified information per section (c) as having equal negative impact as not allowing BAR remote access to investigate, per the proposed section (g), or possessing an electronic device capable of producing falsified information, per the proposed section (h) because they involve acts that permit unlicensed users conducting fraudulent activity, obfuscate proper procedure where connecting inspection equipment to the proper vehicle may need to be observed, and manipulation of vehicle data. These proposed changes are necessary to address frequent inappropriate behavior that misleads the Bureau and directly affects consumers.

Section 3340.41(f) should be deleted from the Administrative Fine Schedule because it was originally included in error and the proposed subdivision (f) does not require a fine.

**SPECIFIC TECHNOLOGIES OR EQUIPMENT**

This regulation mandates the use of specific biometric equipment and minimum performance requirements for web camera technology, meeting minimum performance standards. Such mandates are required to ensure inspectors use an accurate biometric device that is suited for the environment and to ensure the remote access audio and video are of a sufficient quality to support BAR’s business needs.

BAR researched various biometric technologies before deciding on the proposed biometric equipment. BAR consulted with Georgia’s Clean Air Force vehicle emissions inspection and

maintenance program, which uses finger vein biometric technology in thousands of stations and believes it has stamped out fraudulent inspections. Georgia's implementation of this technology is similar to BAR's envisioned procedure. In Georgia, the inspector's ID is entered, then a biometric scan is performed to verify the user before beginning an inspection. Difficulties with licensing agreements between the manufacturer and the various systems integrators, the somewhat narrow environmental operating temperature range, and BAR's in-house testing using this and the proposed device on hundreds of BAR on road pullover inspections steered BAR toward the proposed palm vein reader technology. BAR's inspection teams preferred the palm vein technology over similar finger vein technology because it was not affected by sunlight which, if not blocked, prevents use of the finger vein device. After researching various biometric technologies, BAR chose the proposed Fujitsu brand palm vein readers, specifically their latest model with a wider temperature range that is more suitable for shops operating in California's high summer temperatures.

First, Fujitsu is the only palm vein technology in the market and a market leader. Fujitsu palm vein devices are used worldwide in hospitals, banking, airport security, testing centers, libraries and government facilities with over one million units and 86 million users. Some use cases include: patient verification prior to operation, computer access, building access, airport gate security, ATM access fraud prevention, card less credit card payment, and test taker verification. Fujitsu has manufactured this technology for over 12 years. Fujitsu has introduced over 33 versions of software which has continually been enhanced both in authentication of palms but also authentication speed.

Second, this vascular technology actually looks at blood flow in the veins under the skin. The technology is good because it is based on using a person's palm veins that are unique, and cannot be photocopied like a fingerprint. You cannot see the veins so no one can take a picture of the vein pattern in your hand. The palm vein scans are encrypted to protect from manipulation and from others hacking personal biometric information. The Fujitsu Palm Secure technology is more sanitary due to its contactless operation. The hand only needs to hover over the sensor to work. Inspectors would not need to touch the scanner/sensor when performing inspections. Inspectors would only need to touch the hand guide during initial enrollment as required to collect the best palm vein scan, but BAR could sanitize between users. The hand guide will be an optional piece of equipment required in stations. This is important to ensure a sanitary procedure is followed. The similar finger vein technology, used in Georgia, is not as accurate and is not contactless (it requires a user to place their finger on the scanner/sensor). The scanning area of a finger captured for authentication is about 10 times smaller than that of the palm. In theory, therefore, the palm has 10 times the data points for identification. This is why the Fujitsu palm vein technology is more accurate and has more differentiation in the scanned hand data templates.

Other biometric technologies were also evaluated. BAR purchased a fingerprint reader and easily tricked it using a photocopy of the user's finger. BAR researched facial recognition and found solutions easily tricked with a photograph of the actual person. Although BAR was unable to fool the Intel Realsense facial recognition technology, the technology requires a computer with the three Intel Realsense cameras which is only available on certain computers and BAR did not want to impose an unnecessary computer replacement cost and unnecessary downtime incurred when swapping computers.

BAR would inform stations that existing BAR-OIS vendors and one known online reseller have sufficient inventory to meet the demands of Smog Check stations and that stations are free to buy the specified equipment from any other biometric equipment supplying company if they commit to supporting possible future software updates to the sensor (firmware) as have the resellers.

Third, the biometric technology must be used by inspectors to validate they are the licensed inspector starting and ending the inspection. Currently, many fraudulent inspections are performed by unlicensed users when the licensed inspector allows them to use their password. In addition, positive inspector identification is necessary to pursue criminal prosecution because currently the defense uses the argument that someone stole the licensed inspector's password without their knowledge.

Use of the proposed biometric device will initially require all license inspectors to visit their local BAR field office, unless choosing to enroll early where BAR will visit the station as an incentive, to prove their identity by showing government-issued ID and enrolling with initial biometric scan of left and right hands. Inspectors seeking a license will need to enroll. Once enrolled, inspectors will simply scan their badge or manually enter their license number then place either hand on the scanner to begin and end an inspection. Scans only take seconds and are more convenient than typing in a password. Biometric may also optionally be used for other inspection system software functions like reprinting an inspection report.

BAR shared the proposed biometric solution with stakeholders at the January 17, 2019 and January 23, 2020 BAR Advisory Group meetings. Representatives of the Smog Check inspection industry welcomed the change, understanding that it will prevent fraud and steer more business to legitimate stations.

#### **UNDERLYING DATA (Technical, Theoretical, Empirical Studies, and/or Reports Relied Upon)**

1. Marion General Hospital use information supports patient trust in the technology, reduction in identity fraud, and ease of use. <https://www.forwardadvantage.com/marion-general-hospital-patientsecure/>
2. GMAT exam information supports the use of palm vein readers for test-taker authentication and identification serial proxy test takers. <https://www.gmac.com/gmat-other-assessments/about-the-gmat-exam/palmvein-identification-gmat-exam>
3. Pearson Professional Centers examination services photographs show a user presenting government issued ID when enrolling for biometric use, then verifying identity at the time of examination. <https://home.pearsonvue.com/Test-Owner/Deliver/Test-center/PPC-photo-tour.aspx>
4. Abstract of a Use Case of Palm Vein Authentication, from the Handbook of Vascular Biometrics, explains the palm vein technology, its capability of identifying individuals in a large population, its high degree of accuracy suitable for banking use, and it works without contact so supports good hygiene. [https://link.springer.com/chapter/10.1007/978-3-030-27731-4\\_5](https://link.springer.com/chapter/10.1007/978-3-030-27731-4_5)

5. Bureau of Automotive Repair 2020 Smog Check Performance Report.  
[https://www.bar.ca.gov/pdf/2020\\_Smog\\_Check\\_Performance\\_Report.pdf](https://www.bar.ca.gov/pdf/2020_Smog_Check_Performance_Report.pdf)

6. Fujitsu Data Sheet – Fujitsu PalmSecure F-Pro Products.

7. Workshop Notice, Agenda, and Presentation from BAR’s October 22, 2020 Bureau Advisory Group Meeting.

**BUSINESS IMPACT**

This regulation will not have a significant adverse economic impact on businesses.

BAR anticipates up to 11,800 biometric devices (including camera, communications, and accessories) will be initially purchased during the first two years of implementation (5,900 in year one and year two) and 495 purchased annually thereafter with one-time set-up costs of approximately \$500 per device, which results in costs as follows:

Bureau of Automotive Repair - Biometrics													
Registration	Applicants Per Year	Fee Costs	Years Ongoing										Total
			1	2	3	4	5	6	7	8	9	10	
Enrollment and Consent Per Year	Various	\$500	5,900	5,900	495	495	495	495	495	495	495	495	15,734
*Biometric IT Hardware Package	Various	\$500	\$2,950,000	\$2,950,000	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$7,880,000
Total Costs:			\$2,950,000	\$2,950,000	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$247,500	\$7,880,000

\*Full Information Technology Hardware Package

BAR notes smog check stations will not need to purchase additional information technology (IT) software because the licensed enrollment with BAR will include software compatibility and support.

BAR indicates those individuals enrolling will be required to undergo an initial biometric data collection (palm scan) and consent, as specified. This process is estimated to take no more than 15 minutes and can be completed either at the smog check station location or at a BAR field office. As a result, BAR is not including this initial activation process in the economic impact calculations.

**ECONOMIC IMPACT ASSESSMENT**

This regulatory proposal will have the following effects:

- This regulatory proposal will not create or eliminate jobs within the State of California because the proposed remote access solution and biometric solution would be implemented by existing BAR contractors and equipment vendors.
- This regulatory proposal will not create new business or eliminate existing businesses within the State of California. The number of Smog Check stations is driven by the number of vehicles requiring inspection. Adding biometric security and remote access solutions to the BAR-OIS and to the BAR-97 EIS will not affect the number of vehicles requiring inspection.
- This regulatory proposal will not affect the expansion of businesses currently doing business within the State of California because this proposal requires Smog Check stations to add biometric security and remote access solutions to the BAR-OIS and to

the BAR-97 EIS, regardless of the size of the station.

- This regulatory proposal benefits the health and welfare of California residents because it helps ensure proper Smog Check inspection and repair, which in turn reduces the use of polluting vehicles on California’s roads.
- This regulatory proposal supports worker safety because of its contactless technology.
- This regulatory proposal benefits the state’s environment by reducing air pollution from mobile source passenger vehicles and trucks by ensuring that vehicles legitimately meet specific Smog Check inspection standards. As this regulation specifically targets security for fraud prevention, fewer vehicles will be on the market that have fraudulently passed Smog Check inspection but are still polluting.

**FISCAL IMPACT ASSESSMENT**

The regulations result in a fiscal impact to the state as follows:

**BAR IT Hardware:** BAR will need to purchase additional laptop computers, cameras, and development kits with one-time costs of approximately \$125,000. Any future IT hardware purchases will be included in periodic updates and costs are unknown at this time.

**BAR IT Software:** BAR’s existing IT maintenance contract provider will update the current software systems to include biometric compatibility through routine quarterly updates. BAR estimates the biometric compatibility enhancement time-work hours will take approximately 1,200 hours with estimated one-time costs of \$400,000, which will be absorbed within the existing maintenance contract.

**Biometric Enrollment and Consent Workload:** BAR indicates a Program Representative I will take approximately 15 minutes to collect an individual’s biometric data and consent of enrollment with costs of approximately \$20 per licensee.

BAR anticipates approximately 5,887 biometric devices will be enrolled in each of the first two years of implementation and 495 per year annually thereafter, which would result in costs as follows:

Bureau of Automotive Repair Biometric Workload												
		Years Ongoing										
Biometric Registration		1	2	3	4	5	6	7	8	9	10	Total
Enrollment and Consent Per Year	Various	5,887	5,887	495	495	495	495	495	495	495	495	15,734
Enrollment and Consent Workload (PR I - 15 min)	\$20	\$116,268	\$116,268	\$9,776	\$9,776	\$9,776	\$9,776	\$9,776	\$9,776	\$9,776	\$9,776	\$310,747
<b>Total Costs:</b>		<b>\$116,268</b>	<b>\$116,268</b>	<b>\$9,776</b>	<b>\$310,747</b>							

\*Program Representative I - approximately \$80 per hour

**Enforcement-Related:** While the regulations are intended to deter unlawful and fraudulent activity, it is difficult to estimate the impact to BAR’s enforcement-related activities. BAR’s future enforcement-related costs are unknown at this time.

To the extent the regulations reduce the total number of future fraudulent inspections cases adjudicated in the state annually, BAR’s investigation, Attorney General (AG), and Office of Administrative Hearing (OAH) costs could be reduced.

Alternatively, the regulations could result in an increase in BAR identifying violations, which would increase enforcement-related costs.

As a result, BAR cannot provide an estimate of enforcement-related costs at this time.

**Citation and Fines:** Failure to comply with the regulations could result in a citation and fined from \$1,000 to \$5,000 per violation, which would help to offset any enforcement-related costs.

### **CONSIDERATION OF ALTERNATIVES**

No reasonable alternative to the regulatory proposal was found to be either more effective in carrying out the purpose for which the action is proposed, or as effective and less burdensome in achieving the purposes of the regulation.

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

Alternative 1: The Bureau considered fingerprint readers. This alternative was rejected because fingerprint readers were found to be easily fooled with a printed fingerprint image used in place of a real finger. In addition, the fingerprint readers tested by BAR were affected by sunlight which blocks proper usage. As discussed under “Specific Technologies or Equipment” below, finger readers were not “equally effective” in achieving the security sought by this regulation.

Alternative 2: The Bureau considered facial recognition cameras. This alternative was rejected because accurate facial recognition required use of an Intel Realsense camera which did not perform well in poor lighting conditions and would add unnecessary expense caused by required replacement of the BAR-OIS and BAR-97 EIS computers with a model containing an imbedded camera. A computer with built-in facial recognition camera starts at \$549. As discussed under “Specific Technologies or Equipment” below, facial recognition cameras were not “equally effective” in achieving the security sought by this regulation nor were they less burdensome due to the costs and downtime required.

Alternative 3: The Bureau considered multifactor authentication; however, this lacked positive user identification during initial enrollment. For example, electronically signing up for an account then entering a token would not allow BAR to identify the user by viewing a government-issued ID. This alternative was not “equally effective” in achieving the security sought by this regulation. Multifactor authentication software licenses would cost approximately \$328,032 per year.

Alternative 4: Pursuant to Gov. Code, § 11346.2 (b)(4)(A), the Bureau considered a performance based alternative where inspectors would be allowed to use any off the shelf biometric technology. This alternative was found to be not feasible because BAR would have to prove every available technology performed with a high degree of accuracy. This was also found to be not feasible due to the cost of integrating an unknown number of technologies with the existing BAR-OIS software. Ultimately, this solution would continue to fail to meet BAR’s policy goals of enhanced authentication and security.

Alternative 5: The Bureau considered taking no action. This alternative was rejected because it would expose consumers to illegal and unethical practices and prevent BAR from achieving the emissions-reductions goals of the Smog Check Program.