

**State of California  
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
AIR RESOURCES BOARD**

**STAFF REPORT:  
INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING**

**PROPOSED TECHNICAL AMENDMENTS TO THE MOTOR VEHICLE  
EVAPORATIVE AND EXHAUST EMISSIONS TEST PROCEDURES**

Date of Release: April 7, 2006  
Scheduled for Consideration: May 25, 2006

This document has been reviewed by the staff of the California Air Resources Board, and approved for publication. Publication does not signify that the contents necessarily reflect the views and policies for the Air Resources Board.

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## EXECUTIVE SUMMARY

The Air Resources Board, United States Environmental Protection Agency (U.S. EPA), and automobile manufacturers have collaborated in an effort to streamline the motor vehicle evaporative emissions test procedures. The U.S. EPA issued a direct final rule for these amendments on December 8, 2005 (U.S. EPA 2005; Summary), that became effective on February 6, 2006. Additional minor amendments were also included that address four-wheel drive dynamometer provisions and clarify the vehicle label specifications. Similarly, staff proposes to modify the applicable California procedures to align with these latest federal versions. The proposal serves to reduce the test burden on manufacturers that is connected with evaporative emission-related certification and in-use vehicle compliance activities, without any change in the stringency of the procedures or effectiveness of the emission standards. This objective is accomplished by procedural clarifications and modifications that eliminate redundancies and complexities and result in a better harmonization with the federal procedures.

In particular, the proposal includes amendments that provide manufacturers with an option to waive compliance demonstration with the certification supplemental two-day diurnal emission standard in order to eliminate compliance redundancy; to clarify the current provision for alternative running loss test procedures so that technical complexities are resolved; to provide an allowance for alternative evaporative canister preconditioning methods with the intent to eliminate inaccessibility difficulties; to clarify the applicability of the In-Use Verification Procedure requirements with respect to fuel types; and, to provide an optional configuration of the canister and vent hoses under refueling emission tests. Accordingly, staff recommends that the proposed amendments be adopted as described.

## **I. INTRODUCTION**

The Air Resources Board (ARB) first required compliance with motor vehicle evaporative emissions standards and test procedures in 1970. Since then ARB has established more stringent evaporative emission standards and more realistic test requirements that reduce evaporative emissions. California's implementation of evaporative emission standards has usually preceded federal action.

In 1996, the United States Environmental Protection Agency (U.S. EPA), ARB, and automobile manufacturers began a collaborative effort to determine if the evaporative test procedures could possibly be "streamlined" without impacting stringency. In December 2002, U.S. EPA proposed streamlined measures that included both clarifications to their current procedures and suggestions for future regulatory modifications (U.S. EPA 2002). Subsequently, these clarifications and modifications were codified by U.S. EPA, and became effective on February 6, 2006 (U.S. EPA 2005). The amendments also included minor revisions to the dynamometer<sup>1</sup> procedures and specifications, and vehicle label requirements.

ARB now proposes similar changes to better harmonize the relevant California procedures with the latest federal revisions. Specifically, these evaporative-related revisions both clarify and modify particular requirements contained within the evaporative, refueling, and exhaust emission test procedures. Other minor amendments to the exhaust procedures are proposed that add new provisions to recognize four-wheel drive dynamometer tests, and update the current vehicle label specifications. Staff's proposal will lessen the test burden on manufacturers of certification and in-use vehicle compliance. The amendments do not affect the stringency of the current requirements. A general discussion of the evaporative emissions-related standards and test procedures is provided below, as well as a more detailed discussion of staff's proposal.

## **II. PROPOSED EVAPORATIVE-RELATED AMENDMENTS**

### **A. Background**

The majority of evaporative emissions results from fuel vapors escaping from a vehicle's fuel system and permeation of the fuel through components such as the

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<sup>1</sup> A dynamometer is a stationary laboratory device used to simulate on-road driving.

fuel tank and fuel lines. Modern vehicles control these emissions by use of a carbon canister<sup>2</sup>, and fuel tanks and lines made from advanced, non-permeable materials.

## **Evaporative Emission Test Procedures**

Evaporative emission certification requirements adopted under the second generation of California's Low Emission Vehicle emission regulations (LEV II evap) were phased in over the 2004 – 2006 model years. These LEV II evap requirements affect passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles<sup>3</sup>. The regulations ensure that evaporative emissions are controlled to "near-zero" levels and that this control will be effective for the useful life of the vehicle. As an option, manufacturers may also certify to California's unique "zero fuel" evaporative emission standard giving manufacturers the opportunity to generate credits to satisfy their Zero Emission Vehicle requirements.

Compliance with the LEV II evaporative standards is demonstrated by measuring the vehicle's evaporative emissions over simulated real-world conditions. For example, evaporative emissions are measured in an enclosed chamber in which the vehicle is subjected to temperatures swings that are intended to simulate exposure to several hot summer days (i.e., diurnals). Evaporative emissions are also measured during simulated driving conditions (i.e., running losses), and immediately after the engine is shut down (i.e., hot soak). Specifically, compliance is demonstrated using a series of two specific test procedure sequences: 1) Three-Day Diurnal plus High-Temperature Hot Soak and Running Loss (3D+HS); and, 2) Supplemental Two-Day Diurnal plus Hot Soak (2D+HS) ("California Evaporative Emission Standards and Test Procedures For 2001 and Subsequent Model Motor Vehicles," adopted August 5, 1999 [hereinafter referred to as "Evap Test Procedures"]; Part I.E.1(d)). Both of these procedures involve prescribed methods to suitably condition and stabilize the evaporative emission control system components (i.e., preconditioning of the canister and the vehicle fuel system (e.g., fuel tank drain and fills, dynamometer test cycles, etc.) prior to the actual emission tests. Moreover, certification compliance is also demonstrated by properly aging evaporative emission control system components to the required useful life in advance of any certification tests. The evaporative certification data submitted by manufacturers are subject to confirmation when requested by the ARB (i.e., confirmatory testing).

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<sup>2</sup> The onboard carbon canister is the prime evaporative emissions control device. The canister contains activated carbon material that collects hydrocarbon vapors and later, under suitable engine conditions, the vapors are "purged" out of the canisters and combusted in the engine.

<sup>3</sup> Incomplete medium-duty vehicles and heavy-duty vehicles, over 14,000 pounds gross vehicle weight rating, are certified to the applicable evaporative emission standards solely on the basis of an engineering evaluation of the system and data which may be partly derived from evaporative control systems certified for use on light- and medium-duty vehicles.

A continuous five-day period is necessary to conduct a 3D+HS test sequence while the 2D+HS test sequence requires approximately four days.

In addition, a manufacturer-administered in-use compliance program (i.e., the In-Use Verification Program or "IUV<sup>4</sup>") requires manufacturers to procure and emission test a specified number of in-use vehicles on an "as received" basis at certain mileage intervals. Under the IUV<sup>4</sup>, vehicles must show compliance with the 3D+HS and 2D+HS emission standards; failure to demonstrate compliance may subject the manufacturer to remedial action. In addition, ARB may conduct its own in-use compliance test program of vehicles that have been identified to have a higher probability of non-compliance.

### **Onboard Refueling Vapor Recovery Emission Procedures**

The existing Onboard Refueling Vapor Recovery (ORVR) requirements ensure that hydrocarbon vapors are not released to the atmosphere during the refueling process. The ORVR emission standards for California are applicable to passenger cars, light-duty trucks, and medium-duty vehicles with a gross vehicle weight rating less than 8,501 pounds. Certification compliance with the ORVR standards is demonstrated by a single test sequence. Test preparations involve steps to condition and stabilize the ORVR and fuel system in a similar manner done for the evaporative emission test sequences. The ORVR sequence allows for evaluations of both integrated and non-integrated evaporative/refueling systems<sup>5</sup>. Vehicle certification also requires a demonstration of compliance with the refueling spitback standard. The ORVR test sequence takes three days to conduct.

## **B. Description of the Proposal**

### **Optional Demonstration of Compliance – Supplemental Two-Day Diurnal Standard for Certification**

The primary purpose of the 2D+HS test is to gauge the evaporative emission control system's ability to adequately purge the canister of "trapped" hydrocarbon vapors within a short drive-time period. However, this purge capability can also be demonstrated by the ORVR test. Furthermore, even though other pertinent evaporative information can be obtained under the 2D+HS test, this information can also be obtained by other means (i.e., 3D+HS test.) Consequently, the

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<sup>4</sup> The In-Use Verification Program was adopted as part of the Compliance Assurance Program ("CAP 2000") amendments included in the LEV II November 5, 1998 rulemaking.

<sup>5</sup> An integrated evaporative/refueling system uses a single carbon canister to retain the hydrocarbon vapors produced by both the evaporative and refueling processes. A non-integrated system uses two separate canisters – one for evaporative, and one for refueling emissions. Only integrated systems have been utilized on vehicles to date.

combined results of the 3D+HS and ORVR tests offer a reliable indication of purge capability and overall evaporative emissions compliance. Thus, if a vehicle complies with both the 3D+HS and ORVR emission standards, it is very likely to comply with the 2D+HS standard. Consequently, in practice, the 2D+HS test becomes somewhat redundant for certification purposes.

Accordingly, staff proposes that manufacturers be allowed the option to certify new vehicles to the 2D+HS standard on the basis of an engineering evaluation. This option relieves manufacturers of the need to demonstrate compliance with the standard by the 2D+HS test sequence. A manufacturer must submit a compliance statement at the time of certification, based on good engineering judgment, that the vehicle's canister purges adequately and complies with the 2D+HS emission standard.

Manufacturers that use this option may be requested by the ARB to provide specific data and information used by the manufacturer to ensure adequate purge flow and compliance with the 2D+HS emission standard. This information may include, but be not limited to, canister type, canister volume, canister working capacity, fuel tank volume, fuel tank geometry, fuel delivery system (e.g., returnless, variable flow fuel pump, etc.), description of the input parameters and software strategy used to control canister purge, nominal purge flow volume (i.e., amount of bed volumes) achieved by a test vehicle after a completed 2D+HS dynamometer drive cycle, and nominal purge flow volume achieved by a test vehicle after completion of the 3D+HS dynamometer drive cycles. In addition, although this option would exempt vehicles from demonstrating compliance with the 2D+HS standard during certification, these vehicles would still be liable for complying with the emission standard in-use. Therefore in-use compliance testing would provide added assurance that the canister is purging adequately.

This option is only available for certification of current technology, gasoline- and ethanol-fueled vehicles that are configured with conventional evaporative emission control systems (e.g., conventional fuel tank materials, liquid seal ORVR systems, carbon canisters, etc.). The option is not available when certifying a vehicle with a non-integrated evaporative/refueling system.

Staff believes this option will not result in any loss of stringency of the standards since manufacturers that elect to use this provision must still certify their vehicles to both the 3D+HS and ORVR emission standards; and comply with the 2D+HS and ORVR emission standards in-use. As a check at the time of certification, the ARB could still request a manufacturer to conduct a 2D+HS certification confirmatory test.

## **Alternative Methods for the Running Loss Test Procedure**

Included in the 3D+HS test sequence is the running loss emission test (Evap Test Procedures, Part III.D.8; and Figure 2). The current running loss test procedure specifies two sampling methods. One method uses atmospheric sampling equipment to measure evaporative emissions in a SHED<sup>6</sup> while the test vehicle operates on the specified dynamometer drive cycle. The other method (i.e., point source sampling) uses a hydrocarbon analyzer to measure evaporative emissions at discreet locations in and around the vehicle while it is operated on the specified cycle (Evap Test Procedures, Parts III.D.8.1; III.D.8.2).

Of particular concern using either of the methods described above is the requirement to monitor and control the temperature of the liquid fuel inside of the tank (Evap Test Procedures, Parts III.D.8.1.8; III.D.8.2.4). This temperature control is aided by the installation of two separate temperature gauges, or thermocouples, into the sides of the fuel tank. Two thermocouples are necessary to obtain the average temperature of the liquid fuel. Moreover, they must be installed at critical locations inside of the tank in order to achieve accurate measurements. As a result, the present method is burdensome because the installation is difficult to perform and requires follow-up repairs or complete replacement of the tank. In addition, because of its invasive nature, this method could likely compromise the long-term performance and durability of the vehicle's evaporative emission control system. At this time, the procedures do not prescribe any other method in which to monitor the liquid fuel temperature inside the tank. However, the existing regulations do give manufacturers the option to use their own alternative running loss procedure (including the monitoring of the liquid fuel temperature) if it provides an equivalent demonstration of compliance (Evap Test Procedures, Part III.D.8.3). While this provides flexibility for the manufacturers, the ARB, under the existing regulations, must follow the prescribed procedures for monitoring the liquid fuel temperature. Thus, the existing regulations do not explicitly allow the ARB to deviate from these procedures, even if the manufacturer certified the vehicle using an alternative method. Accordingly, staff proposes to revise the regulations to make it clear that the ARB may approve a manufacturer's proposed alternative running loss test procedure with the understanding that ARB may also perform certification confirmatory tests and any in-use compliance tests with either the existing procedures or the manufacturer's alternative procedure. This revision would align California's procedures with current federal regulations.

## **Optional Alternative Canister Preconditioning Methods**

The carbon canister must be conditioned properly prior to any tests to ensure accurate and representative test results. The evaporative procedures specify

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<sup>6</sup> A Sealed Housing for Evaporative Determination or "SHED" is a sealed, instrumented, and environmentally controlled chamber in which evaporative emission tests are conducted.

particular methods to precondition a canister for each type of test. For instance, the 3D+HS test sequence prescribes a series of repeated vapor-load-and-purge steps that are performed on the canister to establish an “in-use” state (i.e., stabilization). This stabilization step is then followed by a prescribed injection of a specific amount of vapor into the canister (i.e., loading). Thus, the stabilization and loading steps together form the canister preconditioning process.

The current evaporative procedures require that the canister remain installed in the test vehicle unless the necessary access to the canister’s service ports is not available. In that case, the canister may be removed to allow completion of the basic purge or load processes. Such component removals must be completed carefully so that all of the components remain undamaged and are reassembled properly. Failure to exercise such care can produce leaks or other malfunctions in the system. As a result, the current procedures are burdensome for manufacturers in those situations where the canister is not readily accessible.

Therefore, staff proposes that the evaporative procedures be amended to provide manufacturers an option to use an alternative canister preconditioning method, as applicable. The alternative method must be as, or more, stringent than the comparable method already specified in the procedures. Use of the alternative procedure requires the advance approval of the Executive Officer.

Manufacturers will be required to provide information/data to demonstrate that the alternative method provides at least the current level of stringency throughout the canister preconditioning process. Such information may include, but is not limited to, the canister’s service port locations, description of an auxiliary canister, and a description of how vapors are vented. The ARB may use either a manufacturer’s alternative preconditioning method or the methods already specified in the evaporative procedures for both certification confirmatory testing and in-use compliance testing.

### **In-Use Verification Program Evaporative Emissions Test Requirements**

The existing California motor vehicle IUVP provisions (with amendments) are patterned after the federal regulations (“California Exhaust Emission Standards and Test Procedures For 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles,” adopted August 5, 1999, and last amended August 4, 2005 [hereinafter “Exhaust Test Procedures”]; Introductory Paragraph, Part I.I). The IUVP procedures imply that manufacturers must demonstrate compliance with both the 3D+HS and 2D+HS emission standards for all applicable fuel types on each evaporative/refueling family. However, the intent of CAP2000 has historically been that only one evaporative test demonstration (i.e., either the 3D+HS or the 2D+HS, not both) would be required for all applicable fuel types of each evaporative/refueling family under the IUVP

(U.S. EPA 2005; List of Changes To Test Procedures, Evaporative Test Procedure, Item 6). Indeed, the U.S. EPA has amended the federal IUVF regulations to clarify this ambiguity.

Accordingly, staff proposes that the California IUVF provisions be modified to align with the current federal version. The change clarifies the IUVF requirements, and thus decreases the burden of the IUVF compliance for manufacturers. Specifically, the change requires that for gasoline- and ethanol-fueled IUVF vehicles, the 2D+HS test would be used to demonstrate compliance. For liquefied petroleum gas- and non-dedicated compressed natural gas-fueled (i.e., gaseous-fueled) IUVF vehicles, the 3D+HS test would be used. An example of a non-dedicated compressed natural-gas vehicle would be a dual-fueled vehicle that can operate on either gasoline or compressed natural gas.

### **Onboard Refueling Vapor Recovery and Spitback Test Procedures**

The existing California ORVR procedures (with amendments) are patterned after the federal ORVR provisions (“California Refueling Emission Standards and Test Procedures For 2001 and Subsequent Model Motor Vehicles,” adopted August 5, 1999, and last amended September 5, 2003 [hereinafter “ORVR procedures”]; Introductory Paragraph). Included within these procedures are specifications for the proper configuration of the canister and fuel tank-vent hose assembly when tested. Specifically, the vent hose is required to be disconnected from the canister while the drain-and-10-percent-fill step of the test sequence is performed (U.S. EPA 2005; List of Changes To Test Procedures, ORVR and Spitback Test Procedure, Item 1). Disconnection of the vent hose allows the fuel tank vapors to be directed to the ambient air when the ORVR precondition steps are performed. Consequently, these vapors are never “loaded” into the canister. However, manufacturers have indicated that the requirement to disconnect the vent hose from the canister is burdensome. The procedure is invasive and increases the possibility of accidental damage to the evaporative emission control system and improper re-assembly of the components. Either of these occurrences can lead to system leakage which will affect the accuracy and/or repeatability of the test results.

Accordingly, staff proposes that the ORVR procedures be revised to make the disconnection of the canister and vent hose assembly optional when those specific drain-and-fill steps are performed. A manufacturer will be required to indicate in the application for certification which type of canister and vent hose assembly configuration will be used for test purposes. The ARB will utilize the same configuration for certification confirmatory test purposes. Use of this option yields a more stringent test method since the fuel tank vapors are now directed to the canister when the preconditioning steps are performed. Hence, these vapors add an extra load to the canister. However, the option serves to reduce the test

burden associated with preconditioning process. The proposal is also consistent with the recent changes to the federal ORVR requirements.

### **Non-Substantive Changes**

Staff proposes minor non-substantive amendments to maintain harmonization with the applicable federal evaporative requirements. In particular, certain test waiver provisions for certification vehicles that relate to the ORVR and refueling spitback tests are added to the ORVR procedures. These provisions, which are contained in the revised federal procedures, were inadvertently omitted from the July 2002 Code of Federal Regulations.

## **III. PROPOSED FOUR-WHEEL DRIVE DYNAMOMETER AMENDMENTS**

### **A. Background**

Chassis dynamometers capable of testing four-wheel drive (4WD) vehicles were not generally available when the existing dynamometer testing procedures and specifications were initially developed. Consequently, the existing regulations contain procedures and specifications for only two-wheel drive (2WD) dynamometers. Thus, when certifying a 4WD vehicle, manufacturers have historically had to reconfigure the vehicle so that it could operate on a 2WD dynamometer. This sometimes requires major modifications to the vehicle's drivetrain and/or electronic controls. In addition, emission test data derived from a reconfigured 4WD vehicle may not be representative of the vehicle's actual on-road (4WD) operation. With the proliferation of 4WD and all-wheel drive (hereinafter included under "4WD") vehicles in recent years, these issues have become a significant concern.

### **B. Description of the Proposal**

California's existing regulations covering chassis dynamometer procedures and specifications are aligned with existing federal regulations (Exhaust Test Procedures; Introductory Paragraph, Part II.A.100.5.3). The U.S. EPA recently revised its regulations to now include procedures and specifications for 4WD dynamometers.

Consequently, staff proposes that the existing California regulations be amended to allow manufacturers to perform certification emission tests of 4WD vehicles on 4WD dynamometers. Also, depending on the vehicle, and with advance Executive Officer approval, manufacturers would still be given the option to certify 4WD vehicles in a 2WD mode of dynamometer operation.

## **IV. PROPOSED VEHICLE LABELING AMENDMENTS**

### **A. Background**

California's existing emission control label requirements for new vehicles and engines (with amendments) are patterned after the federal provisions (Exhaust Test Procedures; Introductory Paragraph, Part I,C.3). The U.S. EPA recently amended those label provisions in order to more accurately reflect recently adopted emission control system requirements. The label provisions contained within the exhaust procedures are applicable to passenger cars, light-duty trucks, and medium-duty vehicles.

### **B. Description of the Proposal**

Some of the information required to be on California's emission control labels is outdated. For example, the requirement for manufacturers to include engine tune-up specifications and adjustments on labels is redundant because contemporary vehicles and engines are electronically controlled such that manual tune-up adjustments are not necessary. The same redundancy applies to the requirement to provide a vacuum hose routing diagram. Any pertinent vacuum hose information will be readily available in the service manuals for vehicles equipped with any vacuum-actuated controls. Also, the requirement to include a machine-readable Vehicle Emission Configuration (VEC) bar code on labels has already been recognized by the ARB as unnecessary (ARB 2002).

Therefore, staff proposes that the label requirements contained within the exhaust procedures be amended. The proposed amendments would align California's label requirements with the latest revisions to the corresponding federal regulations. Specifically, the proposed amendments will eliminate the need for manufacturers to provide label information related to the engine tune-up specifications and adjustments, diagrams of vacuum hose routing, and the VEC bar codes. All other current California label requirements remain in effect. The proposed label content changes should result in an overall decrease in the size of the labels since less information must be displayed. In some instances, it may eliminate the need to install a second, supplemental label. Finally, manufacturers may not need to produce as many different label types because the amendments allow for a more generic format. Staff's proposal provides increased flexibility for the manufacturers without impacting the stringency of the emission control system requirements.

## **V. REGULATORY ALTERNATIVES**

One possible regulatory alternative is to not make any changes to the existing evaporative and exhaust emission test procedures. Staff does not recommend this “no action” alternative because the recent federal changes would not be reflected in the California procedures. This would increase the inconsistency between these procedures, which would increase the test burden on manufacturers. The main intent of these proposed amendments is to reduce the test burden on manufacturers by streamlining the manufacturers’ evaporative emission-related certification and IUVP activities. These proposals are the result of several years of ongoing dialogue and cooperation among U.S. EPA and manufacturers. All parties agree that the proposed revisions are mutually beneficial. Therefore, staff believes that there are no other viable regulatory alternatives to the proposed amendments.

## **VI. AIR QUALITY, ENVIRONMENTAL, AND ECONOMIC IMPACTS**

### **Air Quality and Environmental Impacts**

The proposed amendments are primarily intended to streamline the procedure through which new motor vehicles are both evaporative emission certified and in-use vehicles are compliance tested. The other minor amendments that provide 4WD dynamometer provisions and update vehicle label specifications further refine and improve the overall vehicle emission compliance program. The proposal does not change the stringency of the existing procedures or emission standards. Thus, California’s air quality will not be affected by these amendments. Further, staff has determined that adoption of the proposed amendments will not result in any significant adverse impacts on water quality, land, or biological resources.

### **Economic Impacts**

The proposed amendments to streamline the evaporative procedures should offer an overall improvement in the efficiency of certification and IUVP processes. Indeed, the proposed amendments serve to reduce the manufacturers’ compliance burden through allowances for test waivers and use of alternative methods. The degree of savings will vary depending on a manufacturer’s specific use of those waivers or alternatives. In addition, the proposed minor amendments also offer improvements to these processes. Thus, in the aggregate, the proposed amendments result in beneficial economic impacts to the affected manufacturers. Staff expects that the proposed amendments would have no adverse impacts on California employment, business status, or competitiveness.

## **VII. ENVIRONMENTAL JUSTICE**

State law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Senate Bill 115, Solis; Stats 1999, Ch. 690; Government Code §65040.12(c)). The Board has established a framework for incorporating environmental justice into the ARB's programs consistent with the directives of State law. The policies developed apply to all communities in California, but recognize that environmental justice issues have been raised more in the context of low income and minority communities, which sometimes experience higher exposures to some pollutants as a result of the cumulative impacts of air pollution from multiple mobile, commercial, industrial, areawide, and other sources.

Over the past twenty years, the ARB, local air districts, and federal air pollution control programs have made substantial progress towards improving the air quality in California. However, some communities continue to experience higher exposures than others as a result of the cumulative impacts of air pollution from multiple mobile and stationary sources and thus may suffer a disproportionate level of adverse health effects.

Since the proposal does not change the current stringency of the ambient air quality standards for motor vehicles that apply to all regions of the State, all communities, including environmental justice communities, will continue to benefit from the air quality benefits that would be associated with the proposal. To the extent that motor vehicle operation is higher near certain communities, these communities will receive a greater benefit from well-maintained California vehicle fleets.

## **VIII. STAFF RECOMMENDATION**

Staff recommends that the Board adopt, on the basis of the reasons presented, the proposal as set forth within this staff report, and as specifically described in the appendices.

## IX. REFERENCES

1. U.S. EPA 2005. United States Environmental Protection Agency. "Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Technical Amendments to Evaporative Emissions Regulations, Dynamometer Regulations, and Vehicle Labeling," United States Environmental Protection Agency; Federal Register, Vol. 70, Page 72917 (December 8, 2005)  
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