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Arnold Schwarzenegger
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April 12, 2004

Honorable Michael O. Leavitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Re: The Second and Third Sets of Follow-up Amendments to the California "LEV II" Exhaust and Evaporative Emission Standards and Test Procedures for New Motor Vehicles; Request for Confirmation That Amendments Are Within the Scope of Previous Waivers of Preemption Under Clean Air Act Section 209(b)

Dear Administrator Leavitt:

I am writing to request that you confirm determinations by the California Air Resources Board (ARB or Board) that the second and third sets of follow-up amendments to the second-generation California Low-Emission Vehicle (LEV II) regulations are within the scope of the waiver of preemption under Clean Air Act (CAA) section 209(b) for the LEV II standards and test procedures published April 22, 2003 (68 F.R. 19811).¹

The second set of follow-up amendments to the LEV II regulations included amendments to title 13, California Code of Regulations (CCR), sections 1960.1 and 1961, and the incorporated "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (the LDV/MDV Standards and TPs for MYs 2001+) as last amended December 27, 2000, and the "California Non-Methane Organic Gas Test Procedures" (the NMOG TPs) as last amended August 5, 1999; section 1960.5 and the incorporated "Guidelines for Certification of 1983 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California" (the AB 965 Guidelines for MYs 1983+) as last amended July 12, 1991, and the newly incorporated "Guidelines for Certification of 2003 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California" (the AB 965 Guidelines for MYs 2003+).²

¹ The *first* set of LEV II follow-up amendments, which included the so-called "cleaner federal vehicle" provisions, were formally adopted by our Board on December 27, 2000, and were expressly covered by the LEV II waiver published April 22, 2003.

² The second set of follow-up amendments to the LEV II regulations also included an amendment to section 1962, title 13, CCR, the section that contains California's requirements regarding zero-emission vehicles (ZEVs). This amendment revised the standards for alternative fuel vehicles qualifying as partial ZEV allowance vehicles (PZEVs). At the ARB's request, the LEV II waiver did not include the elements of

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This set of amendments made light- and medium-duty Otto-cycle (gasoline) vehicles subject to the particulate matter (PM) standards that have applied to diesel-cycle engines, established a nonmethane organic gas (NMOG) certification factor, extended the applicability of generic reactivity factors (RAFs), revised the emission offset requirements for federally-certified "AB 965" vehicles offered for sale in California, implemented additional in-use compliance standards, amended the fleet average NMOG phase-in requirements for independent low-volume manufacturers, revised the California NMOG Test Procedures, and made other minor changes. The amendments were approved by our Board by adoption of Resolution 01-51 at the conclusion of a November 15, 2001 hearing. The amendments were formally adopted by Executive Order G-01-002 on July 30, 2002 after a supplemental opportunity for public comment. They were submitted to California's Office of Administrative Law (OAL) for review on August 6, 2002, and were approved by OAL on September 16, 2002.

The third set of follow-up amendments to the LEV II regulations consisted of amendments to title 13, CCR, section 1961, and the incorporated LDV/MDV Standards and TPs for MYs 2001+ as last amended July 30, 2002; section 1965, the incorporated "California Motor Vehicle Emission Control and Smog Index Label Specifications" as last amended November 22, 2000 (the Preexisting Label Specifications), and the newly incorporated "California Smog Index Label Specifications for 2004 and Subsequent Model Passenger Cars and Light-Duty Trucks" (the New Label Specifications); and section 1978 and the incorporated "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" (the ORVR Standards and TPs).³

These amendments included changes in the maintenance schedule for test vehicles, revisions to the California label specifications, revisions to the test cycle for direct ozone reduction technologies, an extension of the high mileage testing requirements for vehicles certifying to 150,000 mile emission standards, corrections to the significant figures of 50°F standards, and alignment of the California refueling emission requirements with the federal requirements. The amendments were approved by our

the LEV II rulemaking that pertained to ZEVs. The ARB has recently adopted major new amendments to the ZEV regulation, which were approved by California's Office of Administrative Law on February 25, 2004. The amendments to section 1962 made in the second LEV II follow-up rulemaking are *not* included in the within-the-scope waiver request covered by this letter. Those ZEV-related amendments will instead be included in the within-the-scope waiver request we are currently preparing for the recent ZEV amendments.

³ The third set of LEV II follow-up amendments was adopted in a rulemaking that also included amendments to sections 1956.1, 1956.8, and 2065, title 13, CCR, and the documents incorporated therein by reference. These latter amendments pertained to heavy-duty engines and vehicles, and are the subject of a separate within-the-scope waiver request.

Board by adoption of Resolution 02-31 at the conclusion of a December 12, 2002 hearing. The amendments were formally adopted by Executive Order G-03-016 on September 24, 2003 after a supplemental comment period.⁴ They were submitted to OAL for review on September 26, 2003, and were approved by OAL on November 4, 2003.

I. Background

The ARB adopted the California LEV II regulations following a November 1998 hearing. These regulations are a continuation of the first generation Low-Emission Vehicle (LEV I) regulations, which were originally adopted in 1990 and required that each manufacturer's fleet of light- and medium-duty vehicles become progressively cleaner each model year through the 2003 model year. The LEV II regulations increase the scope of the LEV I regulations by tightening the emission standards for all light- and medium-duty vehicles (including almost all sport utility vehicles) beginning with the 2004 model year. There are several tiers of increasingly stringent LEV II emission standards to which a manufacturer may certify: low-emission vehicle (LEV); ultra-low-emission vehicle (ULEV); super-ultra-low-emission vehicle (SULEV); and zero-emission vehicle (ZEV). In addition to very stringent emission standards, the LEV II regulations provide flexibility to manufacturers by allowing them to choose the standards to which each vehicle is certified, provided the overall fleet meets the specified phase-in requirements according to a fleet average NMOG requirement that is progressively lower with each model year through 2010.

Subsequent to the adoption of the LEV II program, the U.S. Environmental Protection Agency (U.S. EPA) adopted its own version of stringent requirements for light- and medium-duty vehicles, known as the Tier 2 regulations. (65 F.R. 6698 (February 10, 2000).) In December 2000, the ARB added the "cleaner federal vehicle" provisions to the LEV II regulations program to take advantage of some elements of the recently adopted federal Tier 2 program and thus ensure that only the cleanest vehicle models will continue to be sold in California.

⁴ The amendments pertaining to heavy-duty engines and vehicles described in footnote three were adopted by the December 12, 2002 Resolution, as they did not reflect any substantive revisions from the originally-proposed amendments. The amendments pertaining to light- and medium-duty vehicles covered by this within-the-scope request letter were not formally adopted until completion of a supplemental public comment process.

II. The Second Set of LEV II Follow-Up Amendments (July 30, 2002 Adoption Date)

The second set of LEV II follow-up amendments made a number of relatively minor changes to the LEV II program.

(a) **Establishing a particulate matter standard for light- and medium-duty Otto-cycle vehicles.** Prior to the rulemaking, California required only diesel vehicles to meet a PM emission standard, while U.S. EPA's Tier 2 regulations require both diesel-cycle and Otto-cycle (gasoline) vehicles to meet a PM standard. Although data indicated that PM emissions from well-maintained gasoline vehicles were well below the PM standard for diesel vehicles, concerns had been raised about the possible health effects of PM emissions from gasoline vehicles that utilize direct injection gasoline technology. The amendments make light- and medium-duty Otto-cycle vehicles subject to the same PM standard that has applied to diesel-cycle vehicles. The amendments are not expected to require the use of additional emission control technology on conventional gasoline vehicles, but it is unclear whether direct injection gasoline technology will require additional technology to meet the PM standard. Because conventional gasoline vehicles emit well below the PM standard, a manufacturer is allowed to use representative test data from similar technology vehicles, as permitted under the federal regulations (40 CFR § 86.1829-01(b)(1)(iii)(B)), in lieu of testing for certification.

(b) **Establishing an NMOG certification factor.** Prior to the adoption of the LEV I regulations in 1990-91, hydrocarbon exhaust emission standards were based on emissions of nonmethane hydrocarbon (NMHC) emissions, which provided an adequate representation of exhaust emissions from conventional gasoline and diesel fueled vehicles. With the inception of reformulated gasoline (which has generally contained oxygen) and standards for alternative fuel vehicles, the NMHC standard was not adequate because it did not include oxygenated compounds (such as formaldehyde) that contribute to exhaust reactivity and which may be present in significant amounts in reformulated gasoline as well as alternative fuel vehicles using fuels such as methanol and ethanol. To provide a more accurate comparison of the reactivity of exhaust emissions of the various vehicle/fuel systems, the individual reactivity of all measurable hydrocarbon species in an exhaust sample needed to be considered. The LEV regulations accordingly established emission standards for NMOG, which includes not only NMHC but also any carbonyls and alcohols present in the exhaust.

When U.S. EPA adopted its Tier 2 regulations, it also required compliance with NMOG emission standards. However, the Tier 2 program allows a manufacturer certifying gasoline or diesel vehicles to demonstrate compliance with the applicable NMOG

standard by measuring NMHC emissions and multiplying the measured emission level by a factor of 1.04 in lieu of measuring carbonyls (40 CFR § 86.1810-01(p).) Manufacturers requested that ARB align the California test requirements with the federal Tier 2 test requirements for gasoline vehicles (California does not require carbonyl measurements for diesel vehicles). Certification data for new vehicles certified in California suggested that applying a factor of 1.04 to NMHC emissions adequately accounts for carbonyl emissions from gasoline vehicles. Accordingly, the amendments align the California's test requirements for gasoline vehicles with the federal Tier 2 requirements with respect to the 1.04 NMHC emissions factor.

In addition, U.S. EPA allows a manufacturer of a gasoline vehicle to submit a statement of compliance with the formaldehyde standards in lieu of full testing of formaldehyde emissions from the vehicle. (40 CFR § 86.1829-01(b)(1)(iii)(E).) Our amendments parallel the federal approach, allowing a manufacturer using the carbonyl factor for gasoline vehicles to demonstrate compliance with the formaldehyde emission standard by including a statement of compliance in the application for certification. Similar to the federal requirements, the manufacturer must demonstrate that the statement of compliance is supported by previous emission tests, development tests, or other appropriate data.

(c) Extending the applicability of generic reactivity adjustment factors (RAFTs). Provisions on the development and use of RAFTs were first included in California's regulations as part of the LEV I program to provide a mechanism for equalizing the air quality impact of all vehicle/fuel systems. Because the composition of NMOG exhaust determines its ozone-forming potential, RAFTs were calculated for various alternative fuels by comparing the ozone-forming potential of each of these fuels meeting a specific NMOG standard with the ozone-forming potential of a conventional gasoline vehicle meeting the same NMOG standard.⁵ Compliance with the NMOG standard is determined by multiplying the measured NMOG emission level by the applicable RAFT. Thus, if the NMOG emissions from a vehicle powered by an alternative fuel are less ozone reactive than emissions from a gasoline vehicle, the alternative fuel vehicle is allowed to emit a higher mass of NMOG than the gasoline vehicle. The availability of RAFTs therefore provides manufacturers with an incentive to produce clean alternative fuel vehicles. Manufacturers can use either the generic RAFTs provided in the California light- and medium-duty vehicle test procedures, or generate their own test group specific RAFTs.

⁵ We use the term "conventional gasoline" to refer to the gasoline available in 1990, when the LEV I regulations were adopted.

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Before this rulemaking, the RAFs contained in the California test procedures were effective only through the 2003 model year. Accordingly, the Board extended the preexisting generic RAFs indefinitely for all fuels except gasoline. Beginning with the 2004 model year, the Board eliminated the generic RAF for gasoline vehicles, which had been 0.94. As a result, the NMOG emissions from these gasoline vehicles will no longer be adjusted, except by the NMOG factor described above, when determining compliance with the applicable emission standard.

This amendment was adopted for several reasons. First, while emission testing has been conducted using a certification gasoline containing the oxygenate methyl tertiary butyl ether (MTBE), the ARB has banned the use of MTBE in the state's gasoline starting December 31, 2003 to protect against contamination of ground and surface waters. The ARB accordingly plans to adopt new specifications for the gasoline used in certification testing which will substitute ethanol as the oxygenate in place of MTBE. If this occurs, emission testing would be required on a large number of vehicles meeting California's emission categories in order to determine an appropriate RAF for the new gasoline fuel. Yet since the oxygenate is a small fraction of gasoline, only a small change in vehicle exhaust reactivity is expected. Second, as emissions from new vehicles decrease (by 2010 the fleet average NMOG requirement for new passenger cars and light-duty trucks is 0.035 g/mi) the ozone impact from eliminating the RAF will be minimal. Third, eliminating the RAF for gasoline effectively increases the ozone stringency of current light- and medium-duty vehicle NMOG emission standards by six percent. Accordingly, this amendment is at least as protective of ozone as the preexisting program. The RAFs for alternative fuels were retained because of the significant ozone benefit those fuels can provide. The provision allowing manufacturers to generate their own test group-specific RAF for gasoline vehicles was also retained.

(d) **Revisions to the emission offset requirements for "AB 965" vehicles.** Under the provisions of the federal CAA, California is allowed to set its own emission standards provided they are at least as protective of the public health as the federal standards. Recognizing that manufacturers may be required to limit product selection because of the stricter California standards, in 1981 the California Legislature enacted a statute that allows manufacturers to introduce dirtier federal vehicles in California as long as their emissions are offset by cleaner California vehicles (Stats. 1981, Ch. 1185 (AB 965).) Section 43102(b) of the California Health and Safety Code requires that the ARB establish guidelines "not later than for the 1983 and subsequent model years, which will allow a manufacturer to certify in California federally certified light-duty motor vehicles with any engine family or families when their emissions are offset by the manufacturer's California certified motor vehicles whose emissions are below the applicable California standards." In response to this directive, the Board initially

adopted "Guidelines for Certification of 1983 Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California"; after a four-year interim program, permanent AB 965 Guidelines were adopted for the 1988 and subsequent model years, and they had been unchanged since 1991.

At the time the AB 965 Guidelines were adopted there was only one applicable exhaust emission standard for light-duty vehicles. The Guidelines allowed a manufacturer to earn emission credits based on the certification levels⁶ of its new light-duty vehicle fleet compared to the emission standard for those vehicles. The emission credits required to offset a federal vehicle were the difference between the federal certification level and the sales-weighted mean certification level of all California engine families (Calmean). Estimated credits available to offset federal vehicle emissions were updated at the end of the model year using vehicle production data and assembly-line emissions data. With sufficient offsetting credits, a federally-certified vehicles that did not meet California emission standards could be sold in California.

The problem with the methodology used in the AB 965 Guidelines was that as vehicles age, their emissions increase. Hence, it is erroneous to assume that the difference between the certification emission level of a vehicle and the applicable emission standard for that vehicle represents actual "extra" emission benefits that could be used to offset higher-emitting vehicles. Furthermore, the "Compliance Assurance Program," or "CAP 2000," developed through a cooperative effort between ARB, U.S. EPA, and manufacturers to streamline the in-use compliance program, and adopted by the Board as part of the LEV II program, eliminated assembly-line quality audit testing, which provided the basis for determining the actual emission credits.

The LEV II program presented a unique opportunity to revise the AB 965 Guidelines to more accurately reflect actual vehicle emissions. This opportunity presented itself because of the fleet average requirements in the LEV II regulations that reduce emissions from the new vehicle fleet by requiring each manufacturer to phase-in a progressively cleaner mix of vehicles from year to year. For each model year, a manufacturer may choose the standards to which each light-duty vehicle model is certified, provided that the manufacturer's entire fleet of these vehicles meets a specified NMOG emission level. In the second LEV II follow-up rulemaking, the Board revised the AB 965 Guidelines for the 2003 and subsequent model years to calculate available emission credits based on each manufacturer's fleet average NMOG level compared to the required fleet average NMOG level.

⁶ The term "certification level" is used to refer to the actual emission value of the tested vehicle. Manufacturers often provide a significant amount of compliance margin by targeting an emission level well below the emission standard to allow for some deterioration during the vehicle's useful life.

In addition to generating credits for hydrocarbon emissions, manufacturers must also generate credits to offset any emissions of carbon monoxide (CO) and oxides of nitrogen (NOx) from their AB 965 vehicles that exceed the fleet average emissions. The fleet average mix of vehicles used to calculate the required NMOG emission level in the EMFAC emission inventory was also used to estimate the fleet average oxides of nitrogen (NOx) and carbon monoxide (CO) emission levels for the purpose of calculating available emission credits for AB 965 vehicles.

(e) **Implement additional intermediate in-use compliance standards.** Even though a manufacturer must certify a vehicle to a set of 50,000 mile and 120,000 mile standards, the LEV II regulations establish slightly less stringent in-use standards for vehicles certifying to LEV II, ULEV II, and SULEV standards for the first three years that a new model is introduced. This was done to provide manufacturers with a temporary in-use compliance margin when they first introduce vehicles to the new standards. At the time of this rulemaking, there were no intermediate in-use standards for light-duty trucks engineered for heavier duty cycles that have a base payload capacity of 2,500 lbs. or higher, or for vehicles certified to the optional 150,000 mile standards for LEV, ULEV, or SULEV. Accordingly, the Board added intermediate in-use standards for these emission categories, equal in stringency to the existing intermediate in-use standards for other emission categories.

(f) **Revisions to the California NMOG Test Procedures.** Because of innovations and advancements in the measurement of automotive exhaust, the NMOG test procedures have periodically been updated to reflect these improvements. Most of the amendments to the NMOG Test Procedures adopted in this rulemaking were highly technical and reflected advances in technology. Staff worked to develop consensus with industry on the various amendments. The most notable amendments are to the MIR values⁷ published in the Appendix to the test procedures. The amended values reflect the new MIR values which were recently adopted in a rulemaking for consumer products and are set forth in section 94700, title 17, California Code of Regulations. To provide consistency in the use of MIR values in reactivity-based regulations, the same MIR values are now used in the motor vehicle and consumer product emission control programs.

(g) **Revisions to the fleet average NMOG requirements for independent low volume manufacturers.** Under the ARB's fleet average NMOG requirements for manufacturers of passenger cars and light-duty trucks (LDTs), all manufacturers other than small volume manufacturers (SVMs) are subject to the annually declining fleet

⁷ Maximum incremental reactivity (MIR) is defined as the propensity of an organic compounds to form ozone.

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average NMOG requirements in section 1961(b)(1)(A), title 13, CCR. SVMs are subject to a less stringent fleet average NMOG requirement – 0.075 gram per mile (g/mi) for 2001 and subsequent model passenger cars and LDTs from 3751-5750 lbs. loaded vehicle weight (LVW), 0.100 g/mi for LDTs having a LVW of 5751 lbs. or more in the 2001-2006 model years, and 0.075 g/mi for such LDTs in the 2007 and subsequent model years.

In our 2001 ZEV amendments, the ARB established a new vehicle category of "independent low volume manufacturer," which includes manufacturers selling between 4,500 and 10,000 vehicles in California each year, including the sales of any other manufacturer having ten percent or more common ownership. The second set of follow-up LEV II amendments added regulatory provisions on applicability of the fleet average NMOG requirements to this category of manufacturers.⁸ Under the amendments, an independent low volume manufacturer is subject to the same fleet average NMOG requirements as an SVM during the 2001-2006 model years. In the 2007 and subsequent model years, an independent low volume manufacturer will be subject to a more stringent fleet average NMOG requirement of 0.060 g/mi for passenger cars and LDTs from 3751-5750 lbs. LVW, and 0.065 g/mi for LDTs having a LVW of 5751 lbs. or more. This positions the requirements for an independent low volume manufacturer in-between the requirements for an SVM and a large volume manufacturer.

This amendment was adopted in response to comments from Porsche, which pointed out that it is one of very few remaining small manufacturers that has not been acquired wholly or in part by a large volume manufacturer. Independent niche manufacturers like Porsche have only a few car lines, and this makes meeting the fleet average NMOG standard by averaging across model lines difficult. A manufacturer owned in whole or part by another manufacturer typically is able to acquire credits from the other manufacturer. But this is not the case for an independent manufacturer that does not have such ownership ties. Porsche projects that it will lose its SVM status effective with the 2005 model year, based on 1991-2001 model year sales exceeding the 4,500 SVM threshold (See section 1961(b)(1)(C)2., title 13 CCR). At that time, Porsche would be

⁸ The definition adopted as part of the 2001 ZEV amendments is in section 1900(b)(21), title 13, CCR. The ARB submitted a within-the-scope waiver request for these amendments in a May 21, 2002 letter, and then withdrew that request in a letter of July 1, 2002. We will shortly be submitting a within-the-scope waiver request for our 2003 ZEV amendments approved by OAL February 25, 2004, and that request will cover the 2001 ZEV amendments to the extent they were not changed by the 2003 ZEV amendments. However, since we do not know how U.S. EPA will sequence the ZEV request and the request covered by this letter, we ask that U.S. EPA's action on this letter include adoption of the section 1900(b)(21) definition of Independent low-volume manufacturer as well as adoption of section 1961(b)(1)(D) provisions on the fleet average NMOG requirements for that category of manufacturers.

subject to a 2005 model year fleet average NMOG requirement of 0.049 g/mi for passenger cars and 0.076 g/mi for LDTs, forcing it to produce nothing but vehicles meeting the ULEV standard if it has only three car lines at that time. But while its sales are expected to exceed the SVM threshold and could conceivably approach 10,000 vehicles per year by the end of the decade, Porsche would still be a very small manufacturer relative to all other companies competing in the California market when ownership ties are taken into account.

III. The Third Set of LEV II Follow-Up Amendments (September 3, 2003 Adoption Date)

The third set of LEV II follow-up amendments made a number of additional minor changes to California's LEV II regulations.⁹

(a) **Change in maintenance schedule for test vehicles.** To ensure that vehicle emission control systems are durable, ARB regulations establish permitted emission-related scheduled maintenance intervals that a manufacturer must follow when demonstrating durability during certification testing. This information is also provided to a vehicle owner as part of the vehicle maintenance instructions. The preexisting California regulations allowed manufacturers to replace (and advise vehicle owners to replace at the owner's expense) a number of emission control components (e.g., the catalytic converter) at 100,000 miles. This first maintenance interval corresponded to the 100,000-mile "full useful life" standards for passenger cars and light-duty trucks under the LEV I program. Under the LEV II program, however, vehicles certified to LEV II standards will have to meet 120,000-mile "full useful life" standards. The third set of LEV II follow-up amendments changed the provisions on the first allowable scheduled maintenance interval so they are aligned with the vehicle's full useful life – 120,000-miles for passenger cars and light-duty trucks certified to the LEV II standards.

(b) **Revisions to the California Label Specifications.** The Board adopted two amendments to the California Label Specifications. First, it removed the requirement that vehicles display a machine-readable vehicle emission control information (VECI) bar code label. The VECI label was originally intended to be used by inspection and maintenance stations to electronically register test results; however, the California

⁹ In addition to the amendments described in this part of the letter, the third set of LEV II follow-up rulemaking also included the adoption of emission standards and certification requirements for fuel-fired heaters used on vehicles other than ZEVs. These amendments were in section 1961(a)(15), title 13, CCR, and Part I.E.1.13 of the LDV/MDV Standards and TPs for MYs 2001+. We are currently making further changes to these provisions, and we accordingly exclude these particular amendments from the within-the-scope waiver request covered by this letter.

Smog Check stations do not currently scan the VECI label making this requirement obsolete.

Second, the Board restructured the California label requirements to make them more closely track the U.S. EPA requirements. In 1978, the ARB adopted underhood emission control tune-up label requirements for automobile and engine manufacturers to account for California's unique emission standards and certification requirements. However, in 1998 U.S. EPA and the ARB adopted regulations that essentially harmonized the California and federal certification and emission control label requirements for manufacturers. The amendments covered by this waiver request delete the California emission label requirements from the New Label Specifications, and replace them with references in the various California Standards and Test Procedures documents incorporating the pertinent Code of Federal Regulations (CFR) label provisions. For example, all of the light- and medium-duty vehicle tune-up label specifications previously contained in the Label Specifications are now incorporated into section I.C.3. of the LEV/MDV Standards and TPs for MYs 2001+.

The California smog index label requirements are not affected by the amendments and continue to be contained in the New Label Specifications.

(c) **Revision to the test cycle for direct ozone reduction technologies.** The LEV II regulations allow a manufacturer to earn NMOG fleet average emission reduction credits by incorporating new technologies on the vehicle. In order to receive credit, a manufacturer must submit information describing the operation, durability and performance of the device including the ozone-reducing efficiency. The test cycle required for demonstrating ozone reducing efficiency has been the Supplemental Federal Test Procedure. However, this cycle may not necessarily determine the efficiency of an ozone reducing technology device under real world conditions. The Board accordingly substituted a test procedure that is more representative of real world operating conditions – the Unified Cycle Driving Schedule.

(d) **Extending the high mileage testing requirement for vehicles certifying to 150,000-mile emission standards.** The Board extended the limit on high mileage testing of vehicles certifying to the optional 150,000-mile standards specified in section 1961(a)(1), title 13, CCR to 112,500 miles. This is consistent with current requirements contained in the LDV/MDV Standards and TPs for MY2001+ that high-mileage testing be conducted at 75 percent of the full-useful life mileage. This amendment allows a comparable evaluation of the in-use emission performance of these vehicles.

(e) **Corrections to significant figures of 50°F standards.** Most of the ARB's 50°F exhaust emission standards for light- and medium-duty vehicles contain three significant figures after the decimal point (e.g., the NMOG standard for LEV II passenger cars is 0.150 g/mi). However, in three instances, the 50°F NMOG standards only contain two significant figures after the decimal point. For consistency, a third significant figure has been added in these cases.

(f) **California refueling emission requirements.** In its recent decision waiving preemption for the California on-board refueling vapor recovery (ORVR) regulatory requirements (67 Fed. Reg. 54180 (August 21, 2002)), U.S. EPA identified two elements of the California requirements that needed to be revised. The third set of LEV II follow-up amendments make those revisions.

First, the ORVR Standards and TPs and section 1978, title 13, CCR, have contained a statement that, "Gaseous fueled vehicles are exempt from meeting the California refueling standards." This did not effectuate staff's intent that gaseous fueled vehicles would be subject to the federal requirements instead. U.S. EPA has ORVR requirements for vehicles fueled with two gaseous fuels – liquefied petroleum gas (LPG) and natural gas. It makes most sense for the California regulations to specify requirements for these gaseous-fueled vehicles identical to the federal requirements, and incorporate the federal testing requirements. This is how vehicles fueled with gasoline or diesel fuel are treated. Accordingly, the Board adopted amendments that specify the federal ORVR emission standard for LPG-fueled vehicles. There is no federal emission standard for natural gas-fueled vehicles, only specifications for the refueling receptacle. These specifications are also included in the amended California ORVR requirements.

Second, as part of the LEV II rulemaking, staff updated the ORVR Standards and Test Procedures with a new format. The new format incorporated the LDV/MDV Standards and TPs for general certification purposes; however, the amendments had the unintended effect of removing the requirement that only gasoline meeting the federal certification fuel specifications may be used in ORVR certification testing. The amendments that are the subject of this letter reinstate that requirement. They also reinsert an erroneously omitted reference to 40 CFR § 86.1825-01.

(g) **Clarification of regulatory language.** The amendments also reflect various wording changes to the LEV II regulations to clarify the intent of the regulations without changing the substance. In addition, references to the on-board diagnostic II (OBD II) requirements have been updated to additionally refer to newly adopted sections 1968.2 and 1968.5, title 13, CCR.

IV. Criteria for Determining Whether Amendments are within the Scope of Previous Waivers of Federal Preemption

Section 209(a) of the CAA provides that no State shall adopt or enforce any emission standard for new motor vehicles, and no State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle as a condition of registration or titling in the State. However, section 209(b) directs the Administrator to waive federal preemption for new motor vehicle emission standards adopted and enforced by California¹⁰ if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards. The Administrator is to deny a waiver only if she finds: (1) that the protectiveness determination of the State is arbitrary and capricious, (2) that California does not need separate State standards to meet compelling and extraordinary conditions, or (3) that the State standards and accompanying enforcement procedures are not consistent with CAA section 202(a).

With regard to amendments that follow a previously granted waiver of federal preemption, the Administrator has stated that if California acts to amend a previously waived standard or accompanying enforcement procedure, the change may be included within the scope of the previous waiver if it does not undermine California's determination that its standards, in the aggregate, are as protective of public health and welfare as comparable federal standards, does not affect the consistency of California's requirements with section 202(a) of the Act, and does not raise new issues affecting the Administrator's previous waiver determination.¹¹

With regard to the consistency criterion, the Administrator has stated that California's standards and accompanying test procedures are inconsistent with section 202(a) if: (1) there is inadequate lead time to permit the development of technology to meet those requirements, giving appropriate consideration to the cost of compliance within that time frame, or (2) the federal and California test procedures impose inconsistent certification

¹⁰ The section 209(b) waiver provisions apply to any state which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or motor vehicle engines prior to March 30, 1966. (CAA §209(b)(1).) California is the only state that meets this condition. (S. Rep. No. 403, 90th Cong. 1st Sess., 532 (1967); *Motor and Equipment Manufacturers Ass'n [MEMA] v. EPA*, 627 F.2d 1095, 1100 note 1 (D.C.Cir. 1979).)

¹¹ Decision Documents accompanying scope of waiver determinations in 66 F.R. 7751 (January 25, 2001) at 5 and 51 F.R. 12391 (April 10, 1986), at p. 2; see also, e.g., 46 F.R. 36742 (July 15, 1981).

requirements so as to make manufacturers unable to meet both sets of requirements with the same vehicle.¹²

V. The Second and Third Sets of Follow-Up Amendments to the LEV II Regulations Are Within the Scope of Previous Waivers

As noted above, the Administrator has previously waived preemption for California's LEV II exhaust and evaporative emission standards for passenger cars, light-duty trucks, and medium-duty vehicles.¹³ Before that, the Administrator had issued a waiver covering the LEV I regulations as they apply to passenger cars and light-duty trucks,¹⁴ and to medium-duty vehicles,¹⁵ and amendments to our medium-duty vehicle standards adopted in 1990.¹⁶ Several other waivers applicable to these classes of vehicles have been issued as well.¹⁷ In addition, the Administrator has determined that the original adoption of the ARB's AB 965 Guidelines, and subsequent amendments, were within the scope of previous waivers.¹⁸

In Resolutions 01-51 and 02-31 approving the two set of follow-up amendments to the LEV II regulations covered by this letter, the Board found that the amendments do not cause the California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards, do not cause the California requirements to be inconsistent with section 202(a) of the CAA, and raise

¹² See, e.g., 46 F.R. 26371 (May 12, 1981). Even where there is incompatibility between the California and federal test procedures, EPA has granted a waiver under circumstances where EPA accepts a demonstration of federal compliance based on California test results, thus obviating the need for two separate tests. (43 F.R. 1829, 1830 (January 12, 1978); 40 F.R. 30311, 30314 (July 18, 1975).)

¹³ 68 F.R. 19811 (April 22, 2003).

¹⁴ 58 F.R. 4166 (January 13, 1993).

¹⁵ 63 F.R. 18403 (April 15, 1998).

¹⁶ 59 F.R. 48625 (September 22, 1994).

¹⁷ 57 F.R. 38503 (August 25, 1992) (standards for methanol vehicles); 51 F.R. 2430 (January 16, 1986) (standards for vehicles fueled with natural gas or LPG); 55 F.R. 43029 (October 25, 1990) (0.25 g/mi NMHC standards for 1993 and subsequent model light-duty vehicles); 49 F.R. 18887 (May 5, 1984) (particulate matter standards for 1985 and subsequent model-year diesel light-duty vehicles); 47 F.R. 1015 (January 8, 1982); 46 F.R. 36327 (July 14, 1981); 46 F.R. 23671 (May 12, 1981); 45 F.R. 77509 (November 24, 1980); 44 F.R. 38660 (July 2, 1979); 43 F.R. 29615 (July 10, 1978); 43 F.R. 25729 (June 14, 1978); 43 F.R. 15490 (April 13, 1978); 43 F.R. 1829 (January 12, 1978); 42 F.R. 31637 (June 22, 1977); 42 F.R. 1503 (January 7, 1977); and 40 F.R. 23101 (May 28, 1975).

¹⁸ 53 F.R. 21523 (June 8, 1988).

no new issues affecting previous waiver determinations of the Administrator. The two sets of amendments to the California LEV II regulations accordingly fall within the scope of the previous waivers. I address each scope-of-the-waiver criterion below.

(a) Consideration of the amendments as within the scope of previous waivers.

The two sets of amendments to the LEV II regulations constitute amendments to previously waived standards and accompanying enforcement procedures and should appropriately be evaluated by U.S. EPA under its criteria for determining whether amendments are within the scope of previous waivers. We note that one of the elements of the amendments adopted July 30, 2002, was the establishment of a particulate standard for light- and medium-duty Otto-cycle vehicles. Since California already had an identical particulate standard for diesel-cycle engines and four other pollutant standards for Otto-cycle engines, and since the California particulate standard for light-and medium-duty Otto-cycle engines is identical to the one already administered by U.S. EPA, it is appropriate to treat this element as an amendment to a previously waived standard. In at least three past instances, U.S. EPA has confirmed that amendments to California motor vehicle emission standards were within the scope of previous waivers.¹⁹

(b) Protectiveness of the public health and welfare. As noted above, an amendment may be within the scope of a previously granted waiver if it does not undermine California's previous determination that the waived standards, in the aggregate, are at least as protective of public health and welfare as the comparable federal standards. We do not expect the amendments to result in a significant increase in motor vehicle emissions. The impact from the provisions on independent low volume manufactures will be minimal given the small number of vehicles involved and the limited differences in the requirements.

In any event, there are several respects in which the California LEV II regulations are more stringent than the federal Tier 2 regulations, particularly the California NOx standards that are more stringent in the 2007 model year and become increasingly more stringent as the fleet average NMOG standards continues to decline through model year 2010. Further, the first LEV II follow-up amendments (included in the April 22, 2003 LEV II waiver) require that, beginning with the 2004 model year, a

¹⁹ 47 F.R. 23204 (May 27, 1982) (adoption of less stringent 75,000 mile NOx standard and relaxation of HC standard for small volume manufacturers); 53 F.R. 6995 (March 1, 1988) (relaxation of motorcycle HC evaporative emissions standards for small volume manufacturers and expansion of HC exhaust emission standard for small volume manufactures); 53 F.R. 36488 (September 20, 1988) (phase-out and elimination of optional 75,000 mile 0.7 g/mi NOx standard, thus requiring compliance with the more stringent 50,000 mile 0.4 g/mi NOx standard).

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manufacturer may not certify a California vehicle to California exhaust emission standards that are less stringent than the federal standards to which an equivalent federal model is certified. In such a case, the model sold in California must meet the federal exhaust emission standards to which the federal model is certified. Thus in the limited instances in which the Tier 2 regulations were more stringent than the original LEV II regulations, the first LEV II follow-up amendments will assure that any cleaner federal vehicles that are certified because of the differences in programs will also be marketed in California. In this context the amendments covered by this letter clearly will not have the effect of undermining the protectiveness of the California standards for the 2004 and subsequent model years.

(c) **Consistency with section 202(a).** No manufacturer raised any leadtime concerns regarding the amendments covered by this letter. Similarly, no issues of test procedure consistency are presented.

(d) **New issues affecting previous waiver determination.** We are not aware of any new issues affecting the previous waiver determinations regarding California exhaust emission standards and test procedures that are raised by the two sets of amendments we are transmitting. In the 2002-2003 rulemaking, there were only two adverse comments. One was from Porsche, which urged the ARB to adopt new fleet average NMOG requirements for independent low volume manufacturers to reflect their limited number of test groups. As discussed above, the ARB made revisions that accommodate this comment. The Alliance of Automotive Manufacturers urged the ARB to assert it change the LEV II evaporative emissions phase-in schedule to make it identical to the four-year federal Tier 2 and California LEV II exhaust emission schedules. This change was not within the scope of the hearing notice, as the rulemaking pertained only to exhaust emission standards. In the 2002-2003 rulemaking, the only adverse comments pertained to the proposed standards for fuel-fired heaters in vehicles other than ZEVs. As indicated in footnote eight, we are asking that those particular amendments be excluded from the within-the-scope request covered by this letter.

VI. Conclusion

Based on the foregoing, I request that you confirm our conclusion that the second and third sets of follow-up amendments to the LEV II regulations fall within the scope of previous waivers of preemption. The documents on the list set forth below are attached, except that to reduce the volume of paper being transmitted, for Items three-seven and 17-20 we provide the URLs for the documents on the ARB's Internet site. The final regulatory language for which the within-the-scope confirmation is requested is

in Attachments one-five of Item 13, Attachments three, four, six and eight of Item 20, and the attachment to Item 27.

Rulemaking Documents for Second Set of LEVII Follow-Up Amendments

1. Public Hearing Notice, dated September 18, 2001 (published September 28, 2001);
2. Staff Report: Initial Statement of Reasons for Proposed Rulemaking, with Appendix A (Proposed Regulation Order), released September 28, 2001;
3. Proposed amendments to the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 28, 2001, <<http://www.arb.ca.gov/regact/levii01/2001.pdf>>;
4. Proposed amendments to the "California Non-Methane Organic Gas Test Procedures," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 28, 2001, <<http://www.arb.ca.gov/regact/levii01/nmog.pdf>>;
5. Proposed amendments to the "Guidelines for Certification of 1983 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 28, 2001, <<http://www.arb.ca.gov/regact/levii01/1983.pdf>>;
6. Proposed "Guidelines for Certification of 2003 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 28, 2001, <<http://www.arb.ca.gov/regact/levii01/2003.pdf>>;
7. Proposed amendments to the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 28, 2001, <<http://www.arb.ca.gov/regact/levii01/levii01.pdf>>;

8. Transcript of the November 15, 2001 Hearing;
9. Copy of Slides for Staff Presentation;
10. Resolution 01-51, adopted November 15, 2001 (only Attachment G is separately included with this letter – Attachment A is identical to Attachment A to the Staff Report provided as Item 2 above, Attachments B-D and F are identical to the documents provided as Items 4-7 above, and Attachment E pertained to ZEV amendments not part of this request letter);
11. Notice of Public Availability of Modified Text and Supporting Documents and Information and Modified Text
Public Availability Dates: December 14, 2001 – January 4, 2002;
12. Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Responses, dated July 2002;
13. Executive Order G-02-002, dated July 30, 2002, and Attachments:

Attachment 1: Final Regulation Order, showing July 30, 2002 amendments to sections 1960.1, 1960.5, 1961 and 1962, title 13, California Code of Regulations (As noted in footnote two, this request does not cover the amendments to section 1962, which will be covered by our upcoming within-the-scope letter regarding our ZEV regulations);

Attachment 2: July 30, 2002 amendments to "California Non-Methane Organic Gas Test Procedures";

Attachment 3: July 30, 2002 amendments to "Guidelines for Certification of 1983 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California";

Attachment 4: July 30, 2002 adoption of new "Guidelines for Certification of 2003 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California";

Attachment 5: July 30, 2002 amendments to "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles";

Attachment 6: Not included as not covered by this within-the-scope waiver request.

14. Office of Administrative Law's Notice of Approval of Regulatory Action, dated September 16, 2002.

Rulemaking Documents for Third Set of LEVII Follow-Up Amendments

15. Public Hearing Notice, dated September 17, 2002 (published September 27, 2002);
16. Staff Report: Initial Statement of Reasons for Proposed Rulemaking, with Appendices A (Proposed Regulation Order) and B, released September 27, 2002;
17. Proposed amendments to the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," as posted on ARB's Internet site for the third set of LEV II follow-up amendments on September 27, 2002, <<http://www.arb.ca.gov/regact/levhdg02/tp4.pdf>>;
18. Proposed amendments to the "California Motor Vehicle Emission Control and Smog Index Label Specifications," as posted on ARB's Internet site for the third set of LEV II follow-up amendments on September 27, 2002, <<http://www.arb.ca.gov/regact/levhdg02/label5.pdf>>;
19. Proposed new "California Smog Index Label Specifications for 2004 and Subsequent Model Passenger Cars and Light-Duty Trucks," as posted on ARB's Internet site for the third set of LEV II follow-up amendments on September 27, 2002, <<http://www.arb.ca.gov/regact/levhdg02/label6.pdf>>;
20. Proposed amendments to the "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," as posted on ARB's Internet site for the second set of LEV II follow-up amendments on September 27, 2002, <<http://www.arb.ca.gov/regact/levhdg02/tp7.pdf>>;
21. Transcript of the December 12, 2002 Hearing;
22. Copy of Slides for Staff Presentation;

23. Resolution 02-31, adopted December 12, 2002 (only Attachment I is separately included with this letter – Attachment A is identical to Attachment A to the Staff Report provided as Item 16 above, Attachments C, D, F and H are identical to the documents provided as Items 17, 18, 20 and 19 above respectively, and Attachments B, E, and G pertained to heavy-duty engine amendments not part of this request letter);
24. Notice of Public Availability of Modified Text and Supporting Documents and Information and Modified Text
Public Availability Dates: March 28-April 28, 2003;
25. Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Responses, dated August 2003;
26. Executive Order G-03-016, dated September 5, 2003, and Attachments:

Attachment 1: Final Regulation Order, showing amendments to sections 1956.1, 1956.8, 1961, 1965, 1978, and 2065, title 13, California Code of Regulations (Note that the amendments to sections 1956.1 and 1956.8 are covered by a separate within-the-scope request letter);

Attachment 2: Not included as not covered by this within-the-scope waiver request.

Attachment 3: "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," as amended September 5, 2003;

Attachment 4: "California Motor Vehicle Emission Control and Smog Index Label Specifications For 1978 through 2003 Model Year Motorcycles, Light-, Medium- and Heavy-Duty Engines and Vehicles," as amended September 5, 2003;

Attachment 5: Not included as not covered by this within-the-scope waiver request.

Attachment 6: "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," as amended September 5, 2003;

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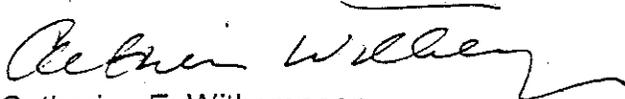
Attachment 7: Not included as not covered by this within-the-scope waiver request.

Attachment 8: "California Smog Index Label Specifications for 2004 and Subsequent Model Passenger Cars and Light-Duty Trucks," as adopted September 5, 2003.

27. November 3, 2003 Memorandum from ARB Senior Staff Counsel W. Thomas Jennings to David Potter, OAL Senior Staff Counsel, with substitute Final Regulation Order as corrected November 3, 2003;
28. Office of Administrative Law's Notice of Approval of Regulatory Action, dated November 11, 2003.

If you need additional information on this item, please call me at (916) 445-4383. Legal questions may be directed to Senior Staff Counsel Tom Jennings at (916) 323-9608, and technical questions may be directed to Paul Hughes, manager of the LEV Implementation Section, (626) 575-6977.

Sincerely,



Catherine E. Witherspoon
Executive Officer

Enclosures

cc: David Dickinson, Attorney/Advisor
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(overnight, with attachments)

