FINAL REGULATION ORDER

Amend the following sections of title 13, California Code of Regulations, to read as set forth in the following pages:

Amend:	
Section 1956.1	Exhaust Emission Standards and Test Procedures –
	1985 and Subsequent Model Heavy Duty Urban Bus
	Engines and Vehicles.
Section 1956.8(a)(2)(A)&(B)	Exhaust Emissions Standards and Test Procedures –
	1985 and Subsequent Model Heavy Duty Urban Bus
	Engines and Vehicles
Section 2023.1(a)(4)&(5)	Fleet Rule for Transit Agencies – Urban Bus
	Requirements
Section 2023.4(b)	Reporting Requirements for Transit Agencies

Notes: The amendments are shown in <u>underline</u> to indicate additions and <u>strikeout</u> to indicate deletions. The symbol "* * * * * means that intervening text not being amended is not shown. "[No Change]" means that no changes are being made to a specified subsection, the text of which is not shown.

Final Regulation Order 1
Submitted to OAL: July 28, 2006
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Amend Section 1956.1 to read as follows:

- § 1956.1 Exhaust Emission Standards and Test Procedures 1985 and Subsequent Through –2006 Model-Year Heavy Duty Urban Bus Engines and Vehicles.
- (a) The exhaust emissions from new 1985 and subsequent model heavy-duty diesel cycle urban bus engines and vehicles fueled by methanol, natural gas, liquefied petroleum gas, and petroleum shall not exceed the following, by model year:
 - (1) [No Change]
 - (2) [No Change]
 - (3) [No Change]
 - (4) [No Change]
 - (5) [No Change]
 - (6) [No Change]
 - (7) [No Change]
 - (8) October 2002-2006 optional standards Except for diesel-fueled, dual-fuel, and bi-fuel engines but including heavy-duty pilot ignition engines, manufacturers may choose to certify 2002-2006 model year bus engines produced beginning October 1, 2002, to an optional 1.8 g/bhp-hr to 0.3 g/bhp-hr NOx plus NMHC standard, measured as the arithmetic sum of the NOx and NMHC exhaust component certification values, without restriction on individual component certification values; provided that engines certified to this optional reduced-emission NOx plus NMHC standard may not participate in any averaging, banking, or trading program set forth in the test procedures document incorporated by reference in subdivision (c) of this section. A manufacturer may certify to any standard between the values of 1.8 g/bhp-hr to 0.3 g/bhp-hr, by 0.3 g/bhp-hr NOx + NMHC increments.
 - (9) [No Change]
 - (10) 2004-2006 ÷ _ Except as provided in paragraph (11), below, the required standard shall be 2.4 g/bhp-hr NOx + NMHC measured as the arithmetic sum of exhaust component certification values for these

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pollutants, without restriction on individual component values, 15.5 g/bhp-hr CO, and 0.05 g/bhp-hr PM (0.07 g/bhp-hr PM in-use).

- (A) Manufacturers may choose to certify to a 2.5 g/bhp-hr optional combined NOx + NMHC standard, provided that the NMHC exhaust component certification value shall not exceed 0.5 g/bhp-hr.
- (B) Emissions averaging may be used to meet the combined NOx + NMHC standard, the optional combined NOx + NMHC standard set forth in paragraph (A), and the PM standard.
- (C) The combined NOx + NMHC standard and the optional combined NOx + NMHC standard described in paragraph (A) may serve as the certification standard for the higher emitting fueling mode of an engine certified under the dual fueling mode certification process set forth in section 1956.8(a)(4), title 13, CCR.
- (11)[No Change]
- (12) 2007 and subsequent 0.2 a/bhp-hr NOx, 0.01 a/bhp-hr PM, 0.05 g/bhp-hr NMHC, 5.0 g/bhp-hr CO, and 0.01 g/bhp-hr formaldehyde.
- 2003-2006 2003-2006 bi-fuel heavy-duty pilot ignition engines A bi-fuel (b) engine meeting the definition of a heavy-duty pilot ignition engine set forth in section 1956.2 (b)(4) may be certified to the standards in section 1956.1 (a)(8) and (a)(10), provided that the engine is certified to an optional PM standard of 0.03, 0.02, or 0.01 g/bhp-hr.
- (c) Test Procedures. The test procedures for determining compliance with standards applicable to 1985 and subsequent through 2006 model-year heavy-duty diesel cycle urban bus engines and vehicles and the requirements for participation in the averaging, banking and trading programs, are set forth in the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," adopted December 12, 2002, and the "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes," adopted October 24, 2002, which are incorporated by reference herein.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43100, 43101, 43104 and 43806, Health and Safety Code; and Section 28114, Vehicle Code. Reference: Sections 39002, 39003, 39017, 39033, 39500, 39650, 39657, 39667, 39701, 40000, 43000, 43000.5, 43009, 43013, 43018, 43102 and 43806, Health and Safety Code; and Section 28114, Vehicle Code.

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Amend section 1956.8 (a)(2)(A)&(B) to read as follows:

§ 1956.8. Exhaust Emissions Standards and Test Procedures – 1985 and Subsequent Model Heavy-Duty Engines and Vehicles.

(a)(1) [No Change]

(2)(A) The exhaust emissions from new 2004 and subsequent model heavy-duty diesel engines, heavy-duty natural gas-fueled and liquefied-petroleum-gas-fueled engines derived from diesel-cycle engines, and heavy-duty methanol-fueled diesel engines, and the optional, reduced-emission standards for 2002 and subsequent model engines produced beginning October 1, 2002, except in all cases engines used in medium-duty vehicles, shall not exceed:

Exhaust Emission Standards for 2004 and Subsequent Model Heavy-Duty Engines, and Optional, Reduced Emission Standards for 2002 and Subsequent Model Heavy-Duty Engines Produced Beginning October 1, 2002, Other than Urban Bus Model-Year Engines Produced From October 1, 2002 Through 2006 (grams per brake horsepower-hour [g/bhp-hr])

Model Year	Oxides of Nitrogen Plus Non-methane Hydrocarbons	Optional Oxides of Nitrogen Plus Non-methane Hydrocarbons	Oxides of Nitrogen	Non-methane Hydrocarbons	Carbon Monoxide	Particulates
2004-2006 ^H	2.4 A,C,E,J	2.5 B,C,E,J	n/a	n/a	15.5	0.10 ^C
October 1, 2002-2006	n/a	1.8 to 0.3 A,D,F	n/a	n/a	15.5	0.03 to 0.01 ^G
2007 and subsequent [™]	n/a	n/a	0.2	0.14	15.5	0.01 ^K

Footnotes A-K [No Change]

- For 2007 and subsequent model-year urban bus engines, this section applies. For urban bus model-year engines produced from October 1, 2002 through 2006, refer to section 1956.1.
- For model years between 2007 and 2009, transit agencies purchasing urban buses and/or urban bus engines shall meet the requirements set forth in section 2023.1.

(B) Phase-in Options Phase-in Options.

(i) 1. Early NOx compliant engines <u>Early NOx compliant engines</u>. For model years 2007, 2008, and 2009, a manufacturer may, at their option, certify one or more of their engine families to the combined NOx plus NMHC standard or FEL applicable to model year 2006 engines under section 1956.8 (a)(2), in lieu of the separate NOx and NMHC standards or FELs applicable to the

Final Regulation Order 4 Submitted to OAL: July 28, 2006 Hearing Dates: September 17, and October 20 and 27, 2005 2007 and subsequent model years, specified in section 1956.8 (a)(2). Each engine certified under this phase-in option must comply with all other emission requirements applicable to model year 2007 engines. To qualify for this option, a manufacturer must satisfy the U.S.-directed production requirement of certifying no more than 50 percent of engines to the NOx plus NMHC standards or FELs applicable to 2006 engines, as specified in 40 Code of Federal Regulations, part 86, section 86.007-11 (g)(1), as adopted January 18, 2001. In addition, a manufacturer may reduce the quantity of engines that are required to be phased-in using the early certification credit program specified in 40 Code of Federal Regulations, part 86, section 86.007-11 (g)(2), as adopted January 18, 2001, and the "Blue Sky" engine program specified in 40 Code of Federal Regulations, part 86, section 86.007-11 (g)(4), as adopted January 18, 2001.

(ii) 2. Early PM compliant engines Early PM compliant engines. A manufacturer certifying engines to the 2007 and subsequent model year PM standard listed in section 1956.8 (a)(2) (without using credits, as determined in any averaging, banking, or trading program described in "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," to comply with the standards) before model year 2007 may reduce the number of engines that are required to meet the 2007 and subsequent model year PM standard listed in section 1956.8 (a)(2) in model year 2007, 2008 and/or 2009. To qualify for this option, a manufacturer must satisfy the PM emission requirements pursuant to the methods detailed in 40 Code of Federal Regulations, part 86, section 86.007-11 (g)(2)(ii), as adopted January 18, 2001.

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NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43100, 43101, 43104, 43105 and 43806, Health and Safety Code; and Section 28114, Vehicle Code. Reference: Sections 39002, 39003, 39500, 43000, 43013, 43018, 43100, 43101, 43102, 43104, 43106, 43202, 43204, 43206, 43210, 43211, 43212, 43213 and 43806, Health and Safety Code; and Section 28114, Vehicle Code.

Amend section 2023.1(a) to read as follows:

§ 2023.1. Fleet Rule for Transit Agencies – Urban Bus Requirements

- (a) To encourage transit agencies that operate urban bus fleets to purchase or lease lower emission alternative-fuel buses, while also providing flexibility to such fleet operators to determine their optimal fleet mix in consideration of such factors as air quality benefits, service availability, cost, efficiency, safety, and convenience, two paths to compliance with this fleet rule are available: the alternative-fuel path and the diesel path.
 - (1) [No Change].
 - (2) [No Change]
 - (3) [No Change]
 - (4) A transit agency within the jurisdiction of the South Coast Air Quality

 Management District shall follow the alternative-fuel path. If the transit
 agency had previously stated its intent to follow the diesel path, the
 change to the alternative-fuel path shall be effective on [Insert effective
 date of subsection].
 - (5) Transit agencies on the diesel path with more than 30 buses in their fleets purchasing model year 2007 through 2009 urban buses that are not certified at or below 0.2 g/bhp-hr NOx emission level shall:
 - (A) Mitigate the increased NOx emissions for each urban bus purchased by retrofitting an existing urban bus or transit fleet vehicle within the fleet with a level 3 particulate matter (PM) verified diesel emission control strategy with an oxides of nitrogen (NOx) reduction efficiency of at least 40 percent, if available, otherwise, with a NOx reduction efficiency of at least 25 percent. This retrofit requirement applies on a one-to-one basis until all diesel urban buses and transit fleet vehicles within the transit agency's fleet are either retrofitted or are determined to be unable to be retrofitted as specified in (B) below.
 - (B) Obtain Executive Officer approval for purchasing a 2007 through 2009 model year urban bus not subject to (A) above by submitting to the Executive Officer a report 90 days prior to the delivery of the urban bus. The report shall provide information that demonstrates that all vehicles in the transit agency's fleet have been retrofitted or are determined to be unable to be retrofitted including when the inability to retrofit occurs for reasons other than a device not verified for the specific urban bus or transit fleet vehicle engine family.

(C) Submit annual reports that meet the requirements in section 2023.4(b)(4).

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NOTE: Authority cited: Sections 39600, 39601, 39667, 43013, 43018 and 43701(b), Health and Safety Code. Reference: Sections 39002, 39003, 39017, 39500, 39650, 39667, 40000, 43000, 43000, 5. 43013, 43018, 43701(b), 43801 and 43806, Health and Safety Code; and Sections 233 and 28114, Vehicle Code.

Amend section 2023.4(b) to read as follows:

§ 2023.4 Reporting Requirements for Transit Agencies.

- [No Change] (a)
- The following reports on new urban bus purchases and/or leases by transit (b) agencies on the diesel path shall be submitted as described below:
 - (1) [No Change]
 - (2) [No Change]
 - (3)[No Change]
 - As set forth in section 2023.1(a)(5), transit agencies with more than 30 <u>(4)</u> buses in their fleet that purchase model-years 2007 through 2009 urban buses not certified at or below 0.2 g/bhp-hr NOx emissions shall submit the following information for each urban bus purchased: the manufacturer, make, and model year of the engine of the urban bus or transit fleet vehicle retrofitted and for each diesel emission control strategy applied, the date of installation, the device's product serial number, and its Diesel Emission Control Strategy Family Name in accordance with the requirements of section 2705(g)(2), title 13, CCR. The first report shall be submitted by January 31, 2007. Subsequent reports shall be submitted annually by January 31 through the year 2016.

NOTE: Authority cited: Sections 39600, 39601, 39659 and 39667, Health and Safety Code. Reference: Sections 39667, 39700, 43000, 43000.5, 43013, 43018, 43801 and 43806, Health and Safety Code.

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