

## TITLE 13. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE EXHAUST EMISSION STANDARDS FOR 2007-2009 MODEL-YEAR HEAVY DUTY URBAN BUS ENGINES AND THE FLEET RULE FOR TRANSIT AGENCIES

The Air Resources Board (the Board or ARB) will conduct a public hearing at the time and place noted below to consider adoption of amendments to the exhaust emission standards and test procedures for urban bus engines and vehicles and to the ARB fleet rule for transit agencies. The purposes of these amendments are to achieve emission reductions from the operations of transit agencies throughout the state, and to make specific changes in the regulations to specifically address transit vehicles used in the South Coast Air Quality Management District (SCAQMD or District). This notice summarizes the significant amendments. The staff report presents the proposal in greater detail.

DATE: September 15-16, 2005

TIME: 9:00 a.m.

PLACE: South Coast Air Quality Management District  
Auditorium  
21865 E. Copley Drive  
Diamond Bar, California 91765

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., September 15, 2005, and may continue at 8:30 a.m., September 16, 2005. This item may not be considered until September 16, 2005. Please consult the agenda for the meeting, which will be available at least 10 days before September 15, 2005, to determine the day on which this item will be considered.

If you have a disability-related accommodation need, please go to <http://www.arb.ca.gov/html/ada/ada.htm> for assistance or contact the ADA Coordinator at (916) 323-4916. If you are a person who needs assistance in a language other than English, please contact the Bilingual Coordinator at (916) 324-5049. TTY/TDD/Speech-to-Speech users may dial 7-1-1 for the California Relay Service.

### **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW**

**Sections Affected:** Proposed amendments to title 13, California Code of Regulations, sections 1956.1, 1956.2, and 1956.8.

Staff has identified two policy decisions to be considered by the Board. They are:

- The appropriate emission standards for new 2007 and later model-year urban bus engines, and the potential amendment of ARB's transit fleet rule to require the use of alternative fuel transit buses statewide; and
- The need for Board adoption of a fleet rule requiring the use of alternative fuel buses by the six "diesel path" transit agencies within SCAQMD.

**Background:** California's current oxides of nitrogen (NOx) emission standard for new 2007 and later model-year diesel urban bus engines is 0.2 grams per brake horsepower-hour (g/bhp-hr) – a tightening of the 0.5 g/bhp-hr NOx standard that has applied for the 2004-2006 model years. The California and federal national heavy-duty truck new engine standard for 2007, which includes urban buses for all but California, is also 0.2 g/bhp-hr NOx, and applies to one-half of the new engines sold in 2007 through 2009. The heavy-duty truck standard, however allows manufacturers the flexibility to choose, for each engine type, any emission level between the current standard 2.4 g/bhp-hr (non-methane hydrocarbon plus NOx) and the new 0.2 g/bhp-hr NOx standard. This results in the option of certifying all engines to an average NOx level of 1.2 g/bhp-hr during 2007 through 2009, and this is what engine manufacturers have stated they plan to do. Thus, California's new urban bus engine standard is more stringent than the national urban bus engine standard.

Along with the exhaust emission standards for urban bus engines and vehicles, in 2000 ARB also adopted a Fleet Rule for Transit Agencies. It has required each transit agency in the state to select a non-revocable compliance path – either the "diesel" path or the "alternative-fuel" path – by January 1, 2001. Path selection establishes the fuel type for new urban bus purchases or leases through model year 2015 and is a non-revocable election. There are 76 transit agencies statewide that report to ARB under ARB's Fleet Rule for Transit Agencies (28 are on the alternative fuel path and 48 are on the diesel path). Most air quality districts are fairly evenly split, with some transit agencies on the alternative fuel path and some on the diesel path. Exceptions are the Bay Area, where most agencies are on the diesel path, and the South Coast, where most agencies are on the alternative fuel path.

The trends in certification and purchases of new urban buses show that manufacturers are not certifying any diesel urban bus engines that meet California's standards of 0.5 g/bhp-hr for 2004 to 2006 model years, leading to little or no turnover of diesel buses in 2004-2006 for transit agencies on the diesel fuel path reluctant to switch to alternative fuel. Engine manufacturers have indicated they do not plan to certify diesel urban bus engines to meet the California NOx standard of 0.2 g/bhp-hr for 2007 to 2009 model year, so diesel engines for buses would continue to be unavailable for three additional years.

In June 2004, ARB staff, with concurrence of the Board, postponed a decision on a staff proposal to align ARB's current urban bus engine standards with the California 2007 heavy-duty standard because of an ongoing evaluation of available 2007 urban bus

engine technology. Of particular interest to the Board was whether natural gas engines would comply with the 2007 urban bus NOx emission standard.

### **Potential Amendments to the Emission Standards for New Urban Bus Engines or Other Statewide Amendments**

Staff has assessed urban bus engine availability based on the current 2007-2009 model year standard versus what could be available if the Board were to amend the NOx standard to align with the current 2007-2009 model year heavy-duty truck engine standards, and is presenting the results of its assessment to the Board. The Board has two basic options. The first is to keep the urban bus NOx standard as it is. Under this option, there will not be any diesel engines that meet the current standard for 2007 through 2009 available to transit agencies on the diesel path. Starting in 2010 however, diesel urban bus engines are expected to meet the required standard and will become available for purchase. Alternative fuel engines will likely be available beginning in 2007 meeting the 0.2 g/bhp-hr NOx standard, and thus transit agencies on the alternative fuel path may continue to buy alternative fuel urban buses and are not directly affected by potential amendments to the urban bus engine emission standard.

Under the first option, many transit agencies favoring diesel buses have indicated that, if no diesel buses are available during 2007 through 2009, they do not plan to purchase alternative fuel buses and instead will delay purchases of new buses until diesel buses are available in 2010. As a result, higher emitting older buses that would have been replaced during 2007 through 2009 will stay in operation until at least 2010, adding to the older buses already held onto during the 2004 through 2006 time period. Supporters of alternative fuels favor this option because it increases the incentive to purchase alternative fuel buses. However, transit agencies on the diesel path oppose it because it disrupts their purchase process of new buses and keeps their older buses on the road longer.

The second option available to the Board is to relax the urban bus NOx emission standard for 2007 through 2009 to align it with the comparable emission standard for heavy-duty truck engines. As a result of this option, urban buses would be required to meet the same standards that most other diesel engines for trucks and buses are required to meet. Manufacturers would accordingly provide compliant diesel engines for urban buses, and urban buses with these engines would be available for transit agencies to purchase beginning in 2007. This results in lower emissions compared to retaining the current standards, at least for the first few years, because higher emitting older diesel buses will be replaced during 2007 through 2009 with the new, cleaner engines meeting a 1.2 g/bhp-hr level for NOx. Under the first option these older diesel buses would remain in service until at least 2010, and perhaps beyond.

Under the second option however, total statewide emissions will be somewhat higher than under the first option after about 2011. This occurs because, under the first option, transit agencies would begin after 2009 to make up for purchases deferred during 2007 through 2009. The engines in the new buses purchased in 2010 and later will meet the

0.2 g/bhp-hr NO<sub>x</sub> standard rather than the less stringent 1.2 g/bhp-hr NO<sub>x</sub> standard that would have applied in 2007-2009 under the second option. Thus, in the longer term there will be some engines meeting the 1.2 g/bhp-hr NO<sub>x</sub> level in the bus fleet under the second option, whereas all would meet 0.2 g/bhp-hr under the first option.

Agencies on the diesel path favor the second option because it allows them to continually purchase diesel buses beginning in 2007 without disruption. Proponents of alternative fuel buses believe that this option undercuts their investment in alternative fuels and sends the signal that the State no longer favors alternative fuels.

A third option the staff considered is amending ARB's Fleet Rule for Transit Agencies to require that all transit agencies statewide use alternative fuel buses when making purchases or leases through 2015. Under this option, transit districts now on the diesel path would no longer have the option of deferring purchases while waiting for diesel engines to be available in 2010. These agencies would have to switch to alternative fuel in order to buy buses and maintain transit service.

The third option results in slightly lower emissions than the second option (align). Compared to the first option (keep current standard), emissions are lower from 2007 to 2012. Transit agencies on the diesel path, particularly those in the Bay Area, strongly oppose this option because they believe the use of alternative fuel buses results in less reliable service, and diesel as clean as alternative fuel buses will be available in 2010 for purchase. They also point out they were allowed to make a choice of fuel type when the ARB Fleet Rule for Transit Agencies was adopted in 2000, and they should not be forced to change now at great cost and disruption, for little air quality benefit. Smaller transit agencies in less urbanized areas have expressed concern about the cost of alternative fuel engines, and the lack of alternative fuel availability. Proponents of alternative fuel strongly favor this approach because it creates a growing demand for their products and a strong incentive to develop new engines.

The rulemaking documents prepared in connection with this notice set forth the language necessary to implement the option of aligning the urban bus standards with the heavy-duty truck standards beginning with the 2007 model year. Should the Board favor the first option – keeping the urban bus standards as they are – no regulatory changes are necessary. Should the Board decide that all transit agencies statewide should be required to purchase alternative fuel, a 15-day modification to ARB's Fleet Rule for Transit Agencies would be needed accomplish this (and no change to the urban bus emission standards would be necessary).

### **Amending ARB's Fleet Rule to Mandate the Alternative Fuel Path for Transit Agencies Within the SCAQMD**

Under its Clean Fleets Program, SCAQMD adopted seven fleet rules during 2000 and 2001. The rules were developed to gradually shift public agencies and certain private entities to lower emission and alternative-fuel vehicles whenever a fleet operator purchases or leases a vehicle for replacement or addition to a fleet. The District

adopted these rules based on Health and Safety Code section 40447.5, which authorizes SCAQMD to adopt regulations that require operators of 15 or more public and commercial fleet vehicles, when adding or replacing vehicles, to purchase vehicles that are capable of operating on methanol or other equivalently clean-burning alternative fuel. One of the fleet rules adopted is Rule 1192 - Clean On-Road Transit Buses.

Shortly after the District adopted its fleet rules, the Engine Manufacturers (EMA) and the Western States Petroleum Association (WSPA) sued the District in federal court challenging its authority to adopt the rules. In April 2004, the United States Supreme Court ruled that it appears likely that at least certain aspects of the fleet rules were preempted by section 209(b) of the federal Clean Air Act. The Supreme Court remanded the case back to the federal District Court to determine whether some parts of the fleet rules could be characterized as state purchasing decisions and, if so, whether preemption applied. In response to this decision, SCAQMD requested that ARB submit the District's rules to the United States Environmental Protection Agency (U.S. EPA) for a waiver of preemption pursuant to section 209(b) of the Clean Air Act. The ARB requested public comment and consulted with U.S. EPA regarding the legal requirements for obtaining a waiver for a rule adopted by a local government.

Based on its review, ARB staff concluded that these fleet rules, as written and adopted by the District, would not receive a Section 209(b) waiver because these rules have not been adopted by the ARB as state regulations (applicable within the SCAQMD). For this reason, staff has developed this proposal which is designed to maintain the reductions anticipated from the full implementation of SCAQMD's Rule 1192 and will ensure that statewide alignment does not allow the six transit agencies in the District that are currently on the diesel fuel path to purchase higher emitting diesel engines.

Of the 17 transit agencies in SCAQMD that are subject to ARB's Fleet Rule for Transit Agencies, 11 are on the alternative fuel path and accordingly must continue to purchase alternative fuel buses through 2015 under the existing ARB rule. These agencies represent 90 percent (4120 buses) of the transit buses in the District. Of the six transit agencies currently on the diesel path in the District, most have been planning to purchase alternative fuel buses only, in order to comply with SCAQMD Rule 1192.

Meanwhile, on May 5, 2005, the federal District Court ruled that, under the "market participant" doctrine, the SCAQMD fleet rules are not preempted to the extent they apply to purchasing decisions made by state and local governmental entities. However, the District Court has not yet addressed questions whether the fleet rules are preempted as they apply to private entities under contract with state or local governments or to used or leased vehicles. It is also possible that EMA or WSPA could appeal the "market participant" decision.

In this rulemaking, the Board will have the option of amending the ARB's Fleet Rule for Transit Agencies to mandate that the six diesel path transit agencies in SCAQMD switch to the alternative fuel path, in order to have the state rule achieving the

alternative fuel objectives of the District's Rule 1192. The ARB's adoption of a unique fleet requirement for the transit agencies in the District would have the effect of addressing the Court's decision while reflecting the Legislature's intent that SCAQMD be authorized to establish an alternative fuel fleet rule for transit districts within the District operating 15 or more buses. Proponents of alternative fuels believe this option will encourage further development of alternative fuel engines and infrastructure, and is a good policy necessary to prepare California for a more energy secure future. Diesel engine manufacturers and California businesses oppose, on principle, any rule that mandates alternative fuels.

If the Board wishes to assure that alternative fuel urban transit buses are purchased throughout the District, and determines it wise to provide a backstop to the current District Rule 1192 in case litigation overturns the District rule, the rulemaking documents include regulatory language that would amend ARB's Fleet Rule for Transit Agencies to require diesel path transit agencies in SCAQMD to switch to the alternative fuel path.

### **COMPARABLE FEDERAL REGULATIONS**

There are comparable federal regulations for 2007 and subsequent model-year heavy-duty engines, which are codified in title 40, Code of Federal Regulations, part 86, subparts A, I, and N. One of the regulatory options developed by staff would align the exhaust emission engine standards for new urban bus engines with the federal standards.

There are no federal regulations comparable to the California fleet rule for transit agencies.

### **AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS**

The Board staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the economic and environmental impacts of the proposal. The staff has also prepared a technical support document (TSD) that summarizes technology available and feasible for rule compliance.

Copies of the staff ISOR, the TSD, and the full text of the proposed regulatory language, in underline and strikeout format to allow for comparison with the existing regulations, may be accessed on the ARB's website listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, California 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing September 15, 2005.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the ARB's website listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons, Mr. David Salardino by email at [dsalardi@arb.ca.gov](mailto:dsalardi@arb.ca.gov) or by phone at (626) 575-6679, or to Ms. Annette Hebert by email at [ahebert@arb.ca.gov](mailto:ahebert@arb.ca.gov) or by phone at (626) 575-6973.

Further, the agency representative and designated back-up contact person to whom nonsubstantive inquiries concerning the proposed administrative action may be directed are Ms. Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-6070, and Ms. Alexa Malik, Regulations Coordinator, (916) 322-4011. The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, ISOR and all subsequent regulatory documents, including FSOR, when completed, are available on ARB's Internet site for this rulemaking at [www.arb.ca.gov/regact/sctransit/sctransit.htm](http://www.arb.ca.gov/regact/sctransit/sctransit.htm)

### **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies and private persons and businesses in reasonable compliance with the proposed regulations are presented below.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action will not create costs or savings to any state agency or in federal funding to the state, costs or mandate to school districts whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other nondiscretionary savings to state or local agencies. However, the staff's proposal to require all transit buses in the SCAQMD to follow the alternative-fuel path, combined with the proposal to align the California urban bus standards with the federal 2007 and later model-year heavy-duty engine standards may result in costs to local agencies operating transit properties, but those costs are expected to be recovered through appropriate fare increases. Statewide, these costs are expected to range from about \$6-\$8 million over the life of the regulations.

In developing this regulatory proposal, the ARB staff evaluated the potential economic impacts on representative private persons or businesses. The ARB is not aware of any cost impacts that a representative private person or business, apart from those providing transit services, would necessarily incur in reasonable compliance with the proposed action.

The Executive Officer has made an initial determination that the proposed regulatory action to require transit buses in the SCAQMD to follow the alternative-fuel path and to align the California urban bus standards with the federal 2007 and later model-year heavy-duty engine standards would not have a significant statewide adverse economic

impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action to require transit buses in the SCAQMD to follow the alternative-fuel path and to align the California urban bus standards with the federal 2007 and later model-year heavy-duty engine standards would not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action to require transit buses in the SCAQMD to follow the alternative-fuel path and to align the California urban bus standards with the federal 2007 and later model-year heavy-duty engine standards would not affect small businesses because the proposed amendments do not impose a mandate to produce but open a potential market by allowing the sale and purchase of urban buses. In addition, the proposal requiring the alternate-fuel path for all transit agencies in the District is expected to have a positive impact on the alternative-fuel engine and bus manufacturers.

Before taking final action on the proposed regulatory action, the Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

### **SUBMITTAL OF COMMENTS**

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by e-mail before the hearing. To be considered by the Board, written submissions not physically submitted at the hearing must be received **no later than 12:00 noon, September 14, 2005**, and addressed to the following:

Postal mail is to be sent to:

Clerk of the Board  
Air Resources Board  
1001 I Street, 23<sup>rd</sup> Floor  
Sacramento, California 95814



Electronic mail is to be sent to: [sctransit@listserv.arb.ca.gov](mailto:sctransit@listserv.arb.ca.gov) and received at the ARB **no later than 12:00 noon, September 14, 2005.**

Facsimile transmissions are to be transmitted to the Clerk of the Board at (916) 322-3928 and received at the ARB **no later than 12:00 noon, September 14, 2005.**

The Board requests but does not require that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

### **STATUTORY AUTHORITY AND REFERENCES**

This regulatory action is proposed under that authority granted in Health and Safety Code, sections 39600, 39601, 39667, 39701(b), 43013, 43018, 43100, 43101, 43104, 43105, 43701(b) and 43806, and section 28114 of the Vehicle Code. This action is proposed to implement, interpret and make specific sections 39002, 39003, 39017, 39033, 39500, 39650, 39657, 39667, 39701, 40000, 43000, 43000.5, 43009, 43013, 43018, 43100, 43101, 43102, 43104, 43106, 43202, 43204, 43206, 43210, 43211, 43212, 43213, 43701(b), 43801 and 43806 of the Health and Safety Code, and sections 233 and 28114 of the Vehicle Code.

### **HEARING PROCEDURES**

The public hearing will be conducted in accordance with the California Administrative Procedure Act, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action; in such event the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from the ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, California 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

/s/  
Catherine Witherspoon  
Executive Officer

Date: July 19, 2005

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs see our Web –site at [www.arb.ca.gov](http://www.arb.ca.gov).*