



California Environmental Protection Agency

Air Resources Board

**Proposed Regulatory Amendments Extending the California Standards for Motor Vehicle
Diesel Fuel to Diesel Fuel Used in Harborcraft and Intrastate Locomotives**

FINAL STATEMENT OF REASONS



May 2005

State of California
California Environmental Protection Agency

AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Response**

PUBLIC HEARING TO CONSIDER REGULATORY AMENDMENTS EXTENDING THE CALIFORNIA STANDARDS FOR MOTOR VEHICLE DIESEL FUEL TO DIESEL FUEL USED IN HARBORCRAFT AND INTRASTATE LOCOMOTIVES.

Public Hearing Date: November 18, 2004
Agenda Item No.: 04-10-3

I. GENERAL

In this rulemaking the Air Resources Board (ARB or Board) is adopting a fuels regulation and an airborne toxics control measure (ATCM) that extend the applicability of the California standards for motor vehicle diesel fuel regulations to diesel fuel used in commercial and recreational harborcraft and intrastate diesel-electric locomotives. The fuels regulation and ATCM will apply to diesel fuel sold for use in commercial and recreational harborcraft within the boundaries of the South Coast Air Quality Management District (SCAQMD) beginning January 1, 2006. They will apply statewide to diesel fuel sold for use in commercial and recreational harborcraft and intrastate diesel-electric locomotives beginning January 1, 2007. Operators of intrastate diesel-electric locomotives will be permitted to use an Alternative Emission Control Plan if approved by the ARB's Executive Officer. Diesel fuel meeting ARB's motor vehicle fuel standards is often referred to as "CARB diesel."

The rulemaking was initiated by the October 1, 2004 publication of a notice for a November 18, 2004 public hearing. A "Staff Report: Initial Statement of Reasons" (referred to as the Initial Statement of Reasons) was also made available for review and comment starting October 1, 2004. The Initial Statement of Reasons, which is incorporated by reference herein, contains an extensive description of the rationale for the proposal. Appendix A to the Initial Statement of Reasons contained the text of the proposed amendments to sections 2281, 2282, 2284 and the additions of section 2299, title 13, California Code of Regulations (CCR), and the text of the proposed new airborne toxic control measures (ATCM) for nonvehicular diesel fuel, section 93116, title 17, CCR. This document was also posted by October 1, 2004 on the ARB's Internet site for the rulemaking: <http://www.arb.ca.gov/regact/carblohc/carblohc.htm>.

At the November 18, 2004 hearing, the Board received written and oral comments. At the conclusion of the hearing, the Board adopted Resolution 04-38, in which it approved the amendments to the California diesel fuel regulations with a modification exempting military specification fuel used in military vessels from both the fuels regulation and the ACTM. This modification was suggested by staff in response to public comment, and was set forth in a one page document entitled "Staff's Suggested Modifications to the Original Proposal," distributed at

the hearing and included as Attachment B to the Resolution. The Resolution directed the Executive Officer to incorporate the modifications into the proposed regulatory text, with such other conforming modifications as may be appropriate, and to make the modified text available for a supplemental comment period. The Executive Officer was then directed either to adopt the amendments with such additional modifications as may be appropriate in light of the comments received, or to present the regulations to the Board for further consideration if warranted in light of the comments.

The text of the modifications to the originally proposed regulatory amendments was made available for a supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text." This Notice and its two attachments were mailed by February 16, 2005 to all parties identified in section 44(a), title 1, CCR. The Notice and its two attachments were also posted on the ARB's Internet site for the rulemaking on February 16, 2005, along with a separate document showing all of the proposed amendments and modifications. An email message announcing and linking to this posting was transmitted to the more than 2,000 parties that have subscribed to the ARB's "fuels-general" List Server for notification of postings pertaining to motor vehicle fuels, and both of the ARB's locomotive and marine vessel list serves. No comments were received during the supplemental 15-day comment period.

The text of a subsequent set of modifications to the originally proposed regulatory amendments to correct a drafting error was made available for a second supplemental 15-day comment period by issuance of a "Second Notice of Public Availability of Modified Text." This Notice and its two attachments were mailed by April 19, 2005 to all parties identified in section 44(a), title 1, CCR. The Notice and its two attachments were also posted on the ARB's Internet site for the rulemaking on April 19, 2005, along with a separate document showing all of the proposed amendments and modifications. An email message announcing and linking to this posting was transmitted to the more than 2,000 parties that have subscribed to the ARB's "fuels-general" List Server for notification of postings pertaining to motor vehicle fuels, and both of the ARB's locomotive and marine vessel list serves. No comments were received during the second supplemental 15-day comment period.

This Final Statement of Reasons updates the Initial Statement of Reasons by identifying and providing the rationale for the modifications made to the originally proposed amendments. It also summarizes and responds to comments submitted during the rulemaking.

Fiscal Impacts. The ARB has determined that this regulatory action will not result in a mandate to any local agency or school district, the costs of which are or are not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code.

Consideration of Alternatives. The ARB has determined that no alternative considered by the agency or that has otherwise been identified and brought to the attention of the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by ARB. Two alternatives were proposed by the public at the November 18, 2004 public hearing.

The SCAQMD and the California Air Pollution Control Officer's Association (CAPCOA) proposed that along with applying the CARB diesel standards to diesel fuel used in harborcraft and intrastate locomotives, the Board should also extend the requirement to diesel fuel sold for use in interstate locomotives.

The Board rejected this alternative because it would not be as effective as the approved amendments in carrying out the purposes of the rulemaking proposal. This is because interstate locomotives have the ability to travel long distances without refueling and could likely be fueled out-of-state with lower priced diesel fuel subject only to the U.S. EPA nonroad standards. A requirement that interstate locomotive operators use CARB diesel fuel could accordingly result in changes to existing California locomotive fueling patterns. This could in turn result in an increase in the use of out-of-state U.S. EPA nonroad diesel fuel in interstate locomotives being operated in California, a corresponding decrease in the use of cleaner CARB or U.S. EPA on-road diesel fuels, causing a potential loss in air quality benefits.

The SCAQMD and CAPCOA also proposed that the regulation should apply statewide starting January 1, 2006 to all diesel fuel used in harborcraft and intrastate locomotives statewide, instead of being limited during 2006 to diesel fuel used in harborcraft in the SCAQMD with statewide implementation beginning January 1, 2007. This alternative was rejected for the reasons set forth in the response to Comment 3.

II. MODIFICATIONS TO THE ORIGINAL PROPOSAL

As discussed above, the final amendments reflect a modification to the original proposal so that the CARB diesel requirements will not apply to military specification fuel that is sold, offered for sale, or supplied for use in marine vessels owned or operated by the armed forces in the United States. The rationale for doing this is set forth in Comment 5 from a representative of the Department of the Navy.

The final amendments also reflect a subsequent modification to the original proposal to correct a drafting error in the definition of “intrastate diesel-electric locomotive.” The Initial Statement of Reasons indicated on page 62 that the proposed definition included “a diesel-electric locomotive that operates principally within California, where at least 90 percent of [the] locomotive’s fuel consumption, hours of operation, or annual rail miles traveled occur within the boundaries of the state of California.” The staff presentation at the hearing and the language in Resolution 04-38 similarly indicated that a locomotive would be covered if 90 percent of any of the three measures occurred in the State. However, the actual regulatory language in the Proposed Regulation Order incorrectly used “and” rather than “or”, so that 90 percent of all three measures would technically be required. Replacing the “and” with the intended “or” is appropriate given the high 90 percent threshold requirement.

The Board has made additional, non-substantial changes. The final regulation order originally proposed as section 93116, title 17, CCR, has been renumbered to section 93117, title 17, CCR in the final regulation order text since another regulation 93116 is now in place.

III. SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSES

During the 45-day comment period, the Board received written comments from:

John Zitrick	Searles Valley Minerals
A.J. Gonzales	U.S. Navy/Department of Defense (DOD)
Dale McKinnon	Manufacturers of Emission Controls Association (MECA)
Don Anair	Union of Concerned Scientists
Diane Bailey	Natural Resources Defense Council (NRDC)
Russell Long	Bluewater Network
David Schonbrunn	TRANSDEF
Brain Beveridge	West Oakland Environmental Indicators Project
Jane Williams	California Communities Against Toxics
Kate M. Larsen	Environmental Defense
Joel Ervice	Regional Asthma Management & Prevention (RAMP) Initiative
Joseph K. Lyou, Ph.D.	California Environmental Rights Alliance
Jude Lamare	Sierra Club California Air Quality Chair
Todd Campbell	Coalition for Clean Air
Susan Frank	Steven & Michele Kirsh Foundation
Bonnie Holmes-Gen	American Lung Association (ALA)
Gina D. Grey	Western States Petroleum Association (WSPA)
Harry Krug	California Air Pollution Control Officers Association (CAPCOA)

At the November 18, 2004 hearing, oral testimony was presented by:

David Smith	British Petroleum (BP)
Joseph Kubsh	MECA
Paul Wuebben	SCAQMD
Kirk Markwald	American Association of Railroads (AAR) and California Environmental Associates (CEA)
Diane Bailey	NRDC
Don Anair	Union of Concerned Scientists
Bonnie Holmes-Gen	ALA
Thomas Cristofk	CAPCOA
Charlie Peters	Clean Air Performance Professionals

Set forth below is a summary of each objection or recommendation specifically directed at the proposed amendments or to the procedures followed by the ARB in proposing or adopting the amendments, together with the agency response. The comments have been grouped by topic whenever possible. Comments that do not involve objections or recommendations specifically directed towards the rulemaking, are generally not summarized below.

The AAR, WSPA, BP, CAPCOA, SCAQMD, MECA, the DOD, and thirteen environmental organizations wrote and testified that they generally supported adoption of the proposed regulatory actions. General comments of support are not separately summarized below.

A. Applicability to Diesel Fuel Supplied to Interstate Locomotives

1. Comment: Interstate locomotives utilize over four times as much diesel fuel as intrastate locomotives, and their operation in California results in significant air quality degradation. We believe the fuel standard under consideration should be extended to interstate locomotives. Given the large emission reductions and the high degree of cost-effectiveness from the use of CARB low sulfur diesel fuel, we believe that this issue should be given the highest priority and that significant steps to this end be taken as soon as possible. (CAPCOA and SCAQMD)

Agency Response: We disagree that this alternative would provide significant additional emission reductions. Since interstate locomotive operators have the potential to change existing fuel patterns (i.e., establishing fuel centers outside of California to allow interstate locomotive fleets to enter and exit California without having to refuel with CARB diesel), this might increase the purchase of more polluting U.S. EPA nonroad diesel fuel prior to entering California, thus reducing the potential emission benefits of this option and potentially resulting in an increase in emissions for interstate locomotives. However, we recognize the significant emission impacts from interstate locomotives. ARB staff continues to explore strategies to increase the use of CARB diesel by interstate locomotives.

2. Comment: The AAR opposes any expansion of the CARB diesel fuel mandate to interstate locomotives. We urge the Board to resist those who have or will argue that the regulation should go further. The AAR's rationale for opposition to this recommendation is that it would be: 1) unworkable operationally; 2) an unfair cost burden to railroads; and 3) not supported by the facts in the record. (AAR)

Agency Response: As discussed in response to Comment 1, we agree that it is not appropriate to mandate the use of CARB diesel in interstate locomotives in this rulemaking.

B. Implementation Date

3. Comment: The regulations call for a January 1, 2006 implementation start date within the South Coast Air Basin for compliance with the harborcraft provisions of the rule. We believe it would be appropriate to extend this start date to the entire state, rather than delay its implementation statewide to January 1, 2007. Harmonization would enhance the effectiveness of the rule and help avoid unnecessary product segregation. The amount of diesel fuel involved is also extremely small relative to the capacity of California refiners to serve this market segment, and is not significant enough to cause any price impacts from a statewide implementation. (CAPCOA and SCAQMD).

Agency Response: We are not making this modification because of its potential adverse impacts on California's diesel fuel supplies in 2006. ARB's low-sulfur requirements for motor vehicle diesel fuel, and the ATCM for nonvehicular diesel fuel not used in marine vessels or locomotives, are phased during June to September 2006, as are U.S. EPA's

nationwide on-road low sulfur diesel fuel standards. As explained on page 65 of the Initial Statement of Reasons, the early implementation date for diesel fuel sold for use in harborcraft in the SCAQMD is needed in order to satisfy emission reduction commitments for harborcraft in the 2003 Statewide Strategy of the California State Implementation Plan. But implementing the CARB diesel requirements for intrastate locomotives and for harborcraft outside the SCAQMD beginning January 1, 2007, limits the need to have special supplies of low-sulfur diesel fuel outside the SCAQMD before the wider June 2006 compliance date. It also provides the California diesel marketplace time to transition to low sulfur diesel fuel for most on- and off-road sources during the summer of 2006, with an additional six months for refiners to adjust to the additional incremental diesel fuel demand (estimated to be about 2.5% of the state's diesel fuel supply) for intrastate locomotives and for harborcraft outside the SCAQMD. Further, this additional diesel fuel demand would occur during the winter, a period of the year when diesel fuel demand is historically low.

C. Cost-Effectiveness Calculations

4. Comment: We believe the cost-effectiveness description provided in the Initial Statement of Reasons raises questions about how the calculation was performed. We understand the cost-effectiveness calculation for these sources is based upon the current emission inventory from the 2003 in-use fuel compared to potential emission reductions and the projected costs from the forecasted 2007 in-use fuel. We believe there is an inconsistency in the forecasting method used to develop the 2007 fuel usage.

In 2003, approximately 49 percent of the fuel used in these sources was CARB diesel and approximately 51 percent was U.S. EPA on-road diesel fuel. The 2007 fuel usage is projected to be 49 percent CARB diesel at 15 ppm sulfur and 51 percent U.S. EPA non-road diesel at 350 ppm sulfur. The assumptions used to calculate how the CARB diesel portion and U.S. EPA diesel portion of the pool will change from 2003 to 2007 (relative to the fuel type and sulfur level) were not consistent. A consistent method of forecasting the future in-use fuel would give different emission reduction and cost impact estimates. A cost-effectiveness analysis based upon a consistent approach could give larger or smaller numbers. In either case, WSPA recommends that the calculation be performed on a consistent basis in order to obtain a more accurate estimate. (WSPA)

Agency Response: We acknowledge that there is an inconsistency in the forecasting method used to develop the predicted 2007 fuel consumption and anticipated emission benefits, which has an impact on calculating the cost-effectiveness. Different methodologies were used by staff to calculate the emission benefits versus the fuel usage estimates from both harborcraft and intrastate locomotives. However, those impacts do not affect the range of the cost-effectiveness numbers provided in the staff report and presented to the Board.

D. Request for Military Marine Vessel Exemption

5. Comment: The proposed rule is particularly troublesome for future operations of the United States Navy in California. The Navy's mission requires that vessels be capable of worldwide operation. In order to assure fuel quality and consistency on a global scale, the Navy uses military specifications to purchase fuel. The same fuel is used in all Navy ships, service craft, and small boats. The primary shipboard propulsion fuels are F-76 (MIL-PRF-16884K Naval Distillate) and JP-5 (MIL-DTL-5624U Turbine Fuel Aviation). The current sulfur caps for these fuels are 1-% weight for F-76 and 0.3% weight for JP-5. Although the United States and some regions of the world are beginning to mandate lower sulfur content in diesel fuels, the sulfur specifications for military fuels will not be lowered for the foreseeable future in order to ensure global availability. In the interest of national security, it would not be feasible to have an additional, separate, fuel along with fuel storage and dispensing facilities strictly for California based harborcraft. Therefore, we request an exemption to the proposed regulation for military vessels. Military vessel means any ship, boat, watercraft, or other contrivance used for any purpose on water, and owned or operated by the armed services. (Department of Navy)

Agency Response: We agree, and the proposed regulatory language has been modified to address the Navy's concerns. The ARB Board approved regulatory language in new section 2299(a)(3), title 13, CCR and 93117(a)(3), title 17, CCR, which would exempt military marine vessels.