

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADOPTION OF A PROPOSED REGULATION FOR MOBILE CARGO HANDLING EQUIPMENT AT PORTS AND INTERMODAL RAIL YARDS

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider adopting a regulation to reduce emissions of diesel particulate matter (PM) and oxides of nitrogen (NOx) from mobile cargo handling equipment that operate at ports and intermodal rail yards in the State of California. Any person who sells, offers for sale, leases, purchases, rents, owns or operates any mobile cargo handling equipment that operates at ports or intermodal rail yards in California would be subject to and have responsibilities under the regulation. This notice summarizes the proposed regulation. The staff report presents the regulation and information supporting the adoption of the regulation in greater detail.

DATE: December 8, 2005

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, Second Floor
1001 I Street
Sacramento, California 95814

This item will be considered at a two-day meeting of the ARB, which will commence at 9:00 a.m., December 8, 2005, and may continue at 8:30 a.m., December 9, 2005. This item may not be considered until December 9, 2005. Please consult the agenda for the meeting, which will be available at least 10 days before December 8, 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 adoption of new section 2479, title 13, California Code of Regulations (CCR).

Background:

HSC sections 43013(b) and 43018 provide broad authority for ARB to adopt emission standards and other regulations to reduce emissions, including those from toxic air contaminants (TACs), and other air pollutant emissions from vehicular and other mobile sources.

With respect to toxic air contaminants (TAC), California's Air Toxics Program, established under California law by AB 1807 (Stats. 1983, Ch. 1047) and set forth in HSC sections 39650 through 39675, mandates the identification and control of air toxics in California. The identification phase of the Air Toxics Program requires the ARB, with participation of other state agencies, such as the Office of Environmental Health Hazard Assessment (OEHHA), to evaluate the health impacts of, and exposure to, substances and to identify those substances that pose the greatest health threat as TACs. The ARB's evaluation is made available to the public and is formally reviewed by the Scientific Review Panel (SRP) established under HSC section 39670. Following the ARB's evaluation and the SRP's review, the Board may formally identify a TAC at a public hearing. Following the identification of a substance as a TAC, Health and Safety Code sections 39658, 39665, 39666, and 39667 require the ARB, with the participation of the air pollution control and air quality management districts (districts), and in consultation with affected sources and interested parties, to prepare a report on the need and appropriate degree of regulation for that substance.

In 1998, the Board identified diesel particulate matter (diesel PM) as a toxic air contaminant with no Board-specified threshold exposure level. A needs assessment for diesel PM was conducted between 1998 and 2000, which resulted in ARB developing a Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel RRP). The Diesel RRP presented information that identified the available options for reducing diesel PM and recommended regulations to achieve further reductions. The scope of the Diesel RRP was broad, addressing all categories of engines, both mobile and stationary.

Once the ARB has evaluated the need and appropriate degree to regulate a TAC, HSC section 39666(c) requires the ARB to adopt regulations to reduce emissions of the TAC from nonvehicular sources to the lowest level achievable through the application of best available control technology (BACT) or a more effective control method, in consideration of cost, risk, environmental impacts, and other specified factors. In developing the proposed regulation, State law also requires an assessment of the appropriateness of substitute products or processes. The mobile cargo handling equipment subject to this regulation are vehicular sources. As such, the proposed regulation will be adopted under the authority provided in HSC section 39667.

Presently, no federal law has been promulgated addressing emission reductions from in-use cargo handling equipment engines. Unless specifically preempted under

Section 209(e)(1)¹, California is the only state allowed to adopt emission requirements for off-road engines that are different from those of the federal government. Section 209(e)(2)(A) of the federal Clean Air Act (CAA) authorizes California to adopt and enforce emission standards and other requirements for off-road engines and equipment not subject to federal preemption, so long as the California standards “will be, in the aggregate, at least as protective of public health and welfare as the applicable Federal standards.” However, California must apply for, and receive authorization from, the administrator of the United States Environmental Protection Agency (U.S. EPA) before ARB may enforce its regulations.

The proposed regulation would reduce emissions of diesel PM and NOx. The regulation would also result in future reductions of reactive organic gases (ROG) due to accelerated turnover of the equipment. Diesel PM emission reductions are needed to reduce the potential cancer risk and other adverse impacts from exposure to this TAC for the people who live in the vicinity of California’s major ports and intermodal rail yards. The regulation would also reduce diesel PM and NOx emissions that contribute to regional PM and will assist California in its goal of achieving state and federal air quality standards. Reductions in NOx and ROG, precursors in the formation of ozone pollution, would help reduce regional ozone levels.

The proposed regulation would provide 711 tons of diesel PM emission reductions and 13,781 tons of NOx emission reductions throughout California between the years of 2007 and 2020. These emission reductions will occur in areas near ports and intermodal rail yards, many of which are non-attainment for the State and federal ambient air quality standards for PM₁₀, PM_{2.5} and ozone.

Description of the Proposed Regulatory Action:

The proposed regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards is designed to use the best available control technology (BACT) to reduce the general public’s exposure to diesel PM and NOx emissions from mobile cargo handling equipment at ports and intermodal rail yards. Mobile cargo handling equipment is any motorized vehicle used to handle cargo and includes, but is not limited to, yard trucks, top handlers, side handlers, rubber-tired gantry (RTG) cranes, forklifts, dozers, and loaders. In addition to required performance standards, the regulation would include recordkeeping and reporting requirements to provide staff up-to-date information on cargo handling equipment and activities and to aid in enforcement of the regulation.

The requirements for newly purchased, leased, or rented equipment, as well as in-use equipment, would affect owners and operators of mobile cargo handling equipment that

¹ CAA Section 209(e)(1) prohibits all states, including California, from adopting emission standards or other requirements related to the control of emissions from new nonroad engines less than 175 horsepower used in farm and construction equipment and vehicles and for new locomotives and engines used in locomotives.

operate at ports and intermodal rail yards in California. The requirements would also affect any person who sells, offers for sale, purchases, leases, or rents mobile cargo handling equipment for use at a port or intermodal rail yard in California. This would include shipping terminals at ports and intermodal rail yard terminals. Mobile cargo handling equipment that does not operate at a port or intermodal rail yard and portable compression-ignition engines are not subject to this regulation.

The proposed regulation would require, beginning January 1, 2007, newly purchased, leased, or rented (new) cargo handling equipment to meet performance standards, which vary depending on the classification of the new equipment (either an off-road equipment or a registered on-road vehicle), and the availability of certified on-road engines for the equipment type and application. For registered on-road vehicles, the new equipment would be required to meet the certified on-road engine standards for the model year in which the engine is purchased. For new off-road equipment where a certified on-road engine is available, the equipment must meet either the on-road engine certification standards or the off-road Tier 4 final certification standards for the model year of the year purchased and the rated horsepower of the engine.

For new off-road equipment for which a certified on-road engine is unavailable, the owner or operator must use the highest level certified off-road engine for the model year of the year purchased and install the highest available level verified diesel emission control strategy (VDECS) within one year of acquiring the new equipment. If no VDECS are available for the new cargo handling equipment during the initial year of operation, the owner or operator would be required to install the highest level VDECS within six months after it becomes available.

The proposed regulation would require in-use yard trucks to meet performance standards based on BACT by choosing one of three options. One option would be to meet the 2007 or later model year certified on-road engine standards; another option would be to meet the certified Tier 4 off-road standards; and the last option would be to apply VDECS that would result in emissions that are less than or equal to the diesel PM and NO_x standards of a certified final Tier 4 off-road diesel engine of the same horsepower rating. Pre-2003 model year yard trucks would be required to comply first, beginning December 31, 2007. Owners or operators of more than three yard trucks would be given additional time to comply. The proposal would allow owners or operators who have installed VDECS or a certified on-road engine prior to December 31, 2006, to delay the compliance date one year.

The proposed regulation would require in-use non-yard truck equipment to use BACT to meet specified performance standards based on the category of equipment. Three categories exist: Basic Container Handling (including, but not limited to top handlers, side handlers, and forklifts²), Bulk Cargo Handling (including, but not limited to dozers, loaders, excavators, and sweepers), and RTG cranes. Each category would have three

² While forklifts are used to handle both containerized and bulk cargo, for the purposes of this regulation, they are considered to be part of the Basic Container Handling equipment category.

compliance options, based on BACT. One option would be to use an engine or power system, including a diesel, alternative fuel, or heavy-duty pilot ignition engine, certified to the 2007 or later model year on-road engine standards or Tier 4 off-road engine standards. Another option would be to use a pre-2007 model year certified on-road engine or a certified Tier 2 or Tier 3 off-road engine and apply the highest level VDECS available. The last option would be to use a pre-Tier 1 off-road engine or a certified Tier 1 off-road engine and install the highest level VDECS available. If either of these last two options requiring VDECS is chosen, an additional compliance step may be necessary, depending on the category of equipment and the level of VDECS used. For Basic Container Handling and Bulk Cargo Handling Equipment, the additional compliance requirement would be to replace the engine with a Tier 4 off-road engine or install a Level 3 VDECS by December 31, 2015. For RTG cranes, the additional compliance requirement would be the same, but the compliance date would be either December 31, 2015, or the model year plus 12 years, whichever is later. More detail is provided in the Staff Report: Initial Statement of Reasons (ISOR or Staff Report).

The proposal would include provisions that allow qualified owners or operators to delay compliance with the in-use performance standards if an engine is within one year of retirement, if no VDECS are available for an engine used in a particular type of cargo handling equipment, if an experimental diesel PM emission control strategy is used, if there are equipment manufacturer delivery delays, or for yard trucks that received incentive funding from public agencies to apply VDECS by the end of 2005. The maximum delay would depend on the compliance extension granted.

The regulation contains an alternative compliance plan option which would allow an owner or operator to submit for approval by the EO an alternative compliance approach as long as it would achieve emission reduction equal to or greater than what would occur under the regulation. The regulation also provides for the experimental use of emissions control technology that has not yet received approval under ARB retrofit verification process. The regulation also allows the owner or operator to demonstrate that the highest VDECS is not feasible for their application.

Recordkeeping and reporting requirements are also defined in the proposed regulation. Owners and operators would be required to maintain records for all mobile cargo handling equipment, affix a label to each vehicle with the compliance strategy used or planned compliance date (or an alternative method approved by the Executive Officer), submit a compliance plan and annual statement of compliance for their mobile cargo handling equipment, and perform annual reporting by submitting to the ARB their contact information and location of their equipment. These requirements would allow staff to monitor the implementation of the regulation and provide more accurate estimates of pollutant reductions.

COMPARABLE FEDERAL REGULATIONS

As stated above, there are no federal regulations for in-use mobile cargo handling equipment that are comparable to the proposed regulation. However, the proposed

regulation relies heavily on the implementation of U.S. EPA's Tier 4 nonroad emission standards for new diesel engines, with which the ARB has harmonized, since engine replacement is one of many compliance pathways. While under CAA Section 213, U.S. EPA may only adopt new emission standards for nonroad engines; California is the only government agency in the nation that may adopt in-use emission standards for non-road engines.

AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS

The Board staff has prepared an ISOR for the proposed regulatory action, which includes a summary of the potential environmental and economic impacts of the proposal, if any. The ISOR is entitled, "Staff Report: Initial Statement of Reasons for the Proposed Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards."

Copies of the ISOR and the full text of the proposed regulatory language may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1st Floor, Sacramento, CA 95814, (916) 322-2990 at least 45 days prior to the December 8, 2005, hearing. The ISOR is also available on the internet at the web site listed below, or by contacting the staff listed below.

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 web site listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons, Peggy Taricco, Manager of the Technical Analysis Section, at (916) 327-7213 or by email at ptaricco@arb.ca.gov, or Lisa Williams, Air Pollution Specialist, at (916) 327-1498 or by email at lwilliam@arb.ca.gov.

Further, the agency representative and designated back-up contact persons to whom nonsubstantive inquiries concerning the proposed administrative action may be directed are Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-6070, or 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, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at <http://www.arb.ca.gov/regact/cargo2005/cargo2005.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.

ARB staff estimates the cost for compliance with the regulation to be approximately 61 million dollars for the total capital and recurring costs. This corresponds to about 6.8 million dollars annually on average for the years 2007 through 2015. This cost, which is based on 2004 dollars, represents the capital cost of equipment, maintenance and replacement, and reporting costs from 2007 through 2015. ARB staff believe the costs associated with the proposed regulation after 2015 will be substantially less.

The cost for a business to comply with this regulation will vary depending on the number and type of cargo handling equipment and whether the equipment is equipped with a VDECS and/or later replaced with a new Tier 4 engine in 2015. For example, the costs for a typical crane engine (rated at 210 hp operated 1370 hours per year) with a diesel particulate filter (DPF) is about \$17,500 for equipment and installation. The estimated annual ongoing costs are based on a reporting cost of about \$500 per terminal with the cost spread over many pieces of equipment. To determine the cost a typical business may incur, we used information from a 2004 ARB survey (survey) on the average number and type of equipment operated by a port container terminal, a port bulk handling terminal, and an intermodal rail yard and applied the annual average costs for the various equipment types. Based on our analysis, we estimate that the total 2007 to 2015 costs to a typical business will be in the range of \$153,000 to \$1,344,000.

California businesses are affected by the proposed annual cost of the regulation to the extent that the implementation of the proposed regulation reduces their profitability. Overall, most affected businesses will be able to absorb the costs of the proposed regulation with no significant adverse impacts on their profitability. This finding is based on the staff's analysis of the estimated change in "return on owner's equity" (ROE). The analysis found that the overall change in ROE ranges from negligible to a decline of about 0.1 percent. Generally, a decline of more than ten percent in ROE suggests a significant impact on profitability. Because the proposed regulation would not alter significantly the profitability of most businesses, we do not expect a noticeable change in employment, business creation, elimination, or expansion, and business competitiveness in California. The change in ROE is expected to be a little larger for a small business, but still well below the 10 percent limit.

Staff does not have access to financial records for most of the companies that responded to the survey. However, the small business status of the survey respondents was determined by including a query on the survey for the owner of the equipment to indicate if their business was a small business (annual gross receipts of \$1,500,000 or less for transportation and warehousing per California Government

Code Section 11342.610). Approximately 10 percent (7 out of 68) of the respondents identified themselves as small businesses. Six of these small businesses provided sufficient data on their equipment inventory to allow an estimation of the estimated costs for compliance with the proposed regulation. Based on our analysis, the total 2007-2015 costs to small businesses ranged from \$33,800 to \$458,000 with an average cost of \$180,000.

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 any local agency or school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, except as discussed below, or other nondiscretionary savings to state or local agencies.

The Executive Officer has made an initial determination pursuant to Government Code 11346.5(a) that the proposed regulatory action will 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. A number of businesses are integrally linked to the goods that travel through California ports. However, we do not believe that the added costs of the proposed regulation are high enough for ship operators to consider alternative ports outside of California.

The agency is not aware of any cost impacts that a representative private person would necessarily incur in reasonable compliance with the proposed regulation.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action will 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.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action will have no significant impact on small businesses. The analysis found that the overall change in ROE ranges from negligible to a decline of about 0.1 percent. The change in ROE is expected to be a little larger for a small business, but still well below the 10 percent limit.

In accordance with Government Code sections 11346.3(c) and 11346.5(a) (11), the ARB's Executive Officer has found that the reporting requirements of the regulation that apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

In accordance with HSC 43013(a) and (b), the Executive Officer has determined that the standards and other requirements in the proposed regulation are necessary, cost-

effective, and technologically feasible for mobile cargo handling equipment at ports and intermodal rail yards.

Before taking final action on the proposed regulatory action, the Board must determine that no reasonable 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 action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

A detailed assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report.

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 must be received **no later than 12:00 noon, December 7, 2005**, and addressed to the following:

Postal mail is to be sent to:

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

Electronic mail is to be sent to: cargo2005@listserv.arb.ca.gov, and received at the ARB **no later than 12:00 noon, December 7, 2005**.

Facsimile submissions 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, December 7, 2005**.

The Board requests but does not require 30 copies of any written submission. Also the ARB requests that written, facsimile, and e-mail 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 ARB 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.

Additionally, the Board requests but does not require, that persons who submit written comments to the Board reference the title of the proposal in their comments to facilitate review.

STATUTORY AUTHORITY AND REFERENCES

This regulatory action is proposed under the authority granted to the ARB in Health and Safety Code sections 39002, 39600, 39515, 39516, 39600, 39601, 39602, 39650, 39655, 39656, 39658, 39659, 39665, 39666, 39667, 39674, 39675, 40000, 41511, 43000.5, 43013, and 43018. This action is proposed to implement, interpret, or make specific Health and Safety Code sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39655, 39656, 39657, 39658, 39659, 39665, 39666, 39667, 39674, 39675, 40000, 41511, 43000.5, 43013, and 43018.

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 ARB may adopt the regulatory language as originally proposed or with non-substantial 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 the event that such modifications are made, 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, 1st Floor, Sacramento, California 95814, (916) 322-2990. The document will also be posted on the web site listed above.

CALIFORNIA AIR RESOURCES BOARD

/s/
Catherine Witherspoon
Executive Officer

Date: October 11, 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."