

TITLE 17. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADOPTION OF A REGULATION TO REDUCE GREENHOUSE GAS EMISSIONS FROM HEAVY-DUTY VEHICLES

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 greenhouse gas (GHG) emissions from heavy-duty vehicles (HDVs). HDVs are commonly used for freight transport and typically consist of a heavy-duty tractor (tractor), the power unit, and a trailer, the towed unit. The proposed regulation affects 53-foot or longer box-type trailers and the tractors that pull them, when operating on California highways.

This notice summarizes the proposed regulatory action. The staff report document presents the proposed regulation and information supporting the adoption of the regulation in greater detail.

DATE: December 11, 2008
TIME: 9:00 a.m.
PLACE: California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, Second Floor
1001 I Street
Sacramento, California 95814

BOARD OF SUPERVISORS
2008 OCT 20 A 11:00

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., December 11, 2008, and may continue at 8:30 a.m., December 12, 2008. This item may not be considered until December 12, 2008. Please consult the agenda for the meeting, which will be available at least ten days before December 11, 2008, to determine the day on which this item will be considered.

During the course of the Board's consideration of this proposal, it may adjourn to allow the public and interested parties to view new and emerging technologies that are being developed for use in complying with the proposed rulemaking.

For individuals with sensory disabilities, this document and other related material can be made available in Braille, large print, audiocassette, or computer disk. For assistance, please contact ARB's Reasonable Accommodations/Disability Coordinator at 916-323-4916 by voice or through the California Relay Services at 711, to place your request for disability services, or go to <http://www.arb.ca.gov/html/ada/ada.htm>.

If you are a person with limited English and would like to request interpreter services to be available at the Board meeting, please contact ARB's Bilingual Manager at 916-323-7053.

INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW

Sections Affected: Proposed adoption to California Code of Regulations (CCR), title 17, new sections 95300, 95301, 95302, 95303, 95304, 95305, 95306, 95307, 95308, 95309, 95310, 95311, and 95312.

Background

In 2006 the legislature passed and Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32; Stats. 2006, chapter 488). In AB 32 the Legislature declared that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The Legislature further declared that global warming will have detrimental effects on some of California's largest industries including agriculture and tourism, and will increase the strain on electricity supplies. While national and international actions are necessary to fully address the issue of global warming, the Legislature recognized that action taken by California to reduce emissions of greenhouse gases will have far-reaching effects by encouraging other states, the federal government, and other countries to act.

AB 32 creates a comprehensive, multi-year program to reduce GHG emissions in California, with the overall goal of restoring emissions to 1990 levels by the year 2020. AB 32 requires ARB to do many things, including:

- Establishing a statewide GHG emissions cap for 2020, based on 1990 emissions;
- Adopting a scoping plan by January 1, 2009, indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions;
- By June 30, 2007, adopting a list of discrete, early action GHG emission reduction measures that can be implemented and enforced no later than January 1, 2010; and
- By January 1, 2010, adopting regulations to implement the measures identified on the list of discrete early action measures.

In 2007 the Board approved a list of nine discrete early action measures. The list includes a measure entitled: "Smartway Truck Efficiency." The proposed regulation is designed to implement this measure.

Description of the Proposed Regulatory Action

The proposed regulation would reduce GHG emissions by requiring some of the new and existing on-road tractors and trailers operating on California highways to be equipped with technologies that would result in improved fuel efficiency, and thus

reduce GHG emissions. The proposed regulation references a federal voluntary program, called the United States Environmental Protection Agency (U.S. EPA) SmartWay Partnership Program, which is designed to improve the environmental performance associated with the ground freight delivery system in the United States. In particular, the SmartWay program approves technologies, such as aerodynamic equipment and low-rolling resistance tires, and certifies tractors and trailers that incorporate these technologies. The proposed regulation relies on the SmartWay program to establish mandatory California tractor and trailer requirements. More specifically, the proposed regulation requires the use of SmartWay certified tractors and trailers, SmartWay approved aerodynamic technologies and low-rolling resistance tires. Examples of aerodynamic technologies include integrated roof fairings on sleeper-cab tractors; and side skirts, gap fairings, and rear trailer fairings on box-type trailers.

The proposed regulation would provide GHG and oxides of nitrogen (NOx) emission reductions throughout California. Tractors and trailers that comply with the proposed regulation by proper use of aerodynamic equipment and low-rolling resistance tires are expected to achieve a fuel efficiency improvement ranging from 7 to 10 percent. Staff estimates that this improvement in fuel efficiency will result in a reduction in tailpipe GHG emissions of approximately 1 million metric tons of CO₂-equivalents (MMT CO₂e) statewide in 2020 and approximately 6.7 MMT CO₂e nationwide. Staff estimates that the cumulative GHG reductions in California from 2010 to 2020, as new fuel efficient tractors and trailers are introduced and in-use tractors and trailers are retrofitted with fuel efficient technologies, will be reduced by a cumulative total of approximately 7.8 MMT CO₂e statewide and approximately 52.1 MMT CO₂e nationwide. Staff also estimates NOx reductions in California of 4.3 and 1.4 tons per day in 2014 and 2020 respectively. These reductions will help with progress toward attainment of National and State ambient air quality standards for particulate matter and ozone.

The proposed regulation focuses on long-haul tractors, because the required technologies offer the most efficient improvements at highway speeds. Thus, the proposed regulation would establish requirements for new and existing 53-foot or longer box-type trailers and the tractors that pull them. The proposed regulation would apply to both California-registered and out-of-state-registered tractors and trailers. For purposes of the proposed regulation, a box-type trailer is a dry-van trailer or a refrigerated-van trailer. As proposed, the regulation would not apply to tractors pulling other types of trailers (e.g., box-type trailers of lengths shorter than 53 feet, or tractors pulling flatbed trailers, logging trailers, drop-frame trailers, curtain side trailers, or chassis trailers hauling shipping containers). Authorized emergency vehicles and military tactical support vehicles, as well as short-haul and drayage tractors that have been provided an express exemption by ARB, would also be exempt from the requirements under the regulation as proposed.

The proposed regulation includes the following compliance schedules:

- Beginning January 1, 2010, a 2011 model year or subsequent model year tractor with a sleeper berth that pulls a 53-foot or longer box-type trailer on a California

highway would be required to be a U.S. EPA certified SmartWay tractor. SmartWay does not currently certify a daycab tractor (without a sleeper berth), so daycab tractors would not be required to be SmartWay certified. Low-rolling resistance tires that meet U.S. EPA SmartWay specifications would be required, beginning January 1, 2010, for all affected 2011 and subsequent model year tractors, regardless of whether they have sleeper berths or not.

- Beginning January 1, 2012, any tractor with or without a sleeper berth that pulls a 53-foot or longer box-type trailer on a California highway would be required to be equipped with SmartWay approved low-rolling resistance tires. This would be the only retrofit requirement for tractors with model years 2010 and earlier, and would allow most 2010 or earlier model year tractors to use their existing tires for the remainder of their useful life before replacing them with low-rolling resistance tires.
- Beginning January 1, 2010, a 2011 model year and subsequent model year 53-foot or longer box-type trailer, including a refrigerated trailer, that is pulled by a tractor on a California highway would be required to be either a U.S. EPA certified SmartWay trailer or fitted with the SmartWay approved technologies described in the proposed regulation. Currently only dry-van trailers are U.S. EPA SmartWay certified. U.S. EPA has not developed specifications for refrigerated trailers, although they may do so in the future. Thus, at present, new, 2011 model year refrigerated trailers will be required to be retrofitted with SmartWay approved components as specified in the regulation.
- Beginning January 1, 2013, 2010 model year and earlier model year 53-foot or longer box-type trailers would be required to be retrofitted with the SmartWay approved technologies described in the regulation. In lieu of meeting the January 1, 2013, compliance date, the trailer owner could choose to comply with an optional trailer fleet compliance schedule.

There are two proposed optional trailer fleet compliance schedules that would be based on size of the trailer fleet. These would allow fleets until 2015 or 2016 to retrofit all trailers that are subject to the proposed regulation. A separate optional schedule is proposed for refrigerated-van trailers with diesel-fueled transport refrigeration units; this schedule provides additional years for compliance because owners of these vehicles will be subjected to another ARB regulation, the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate.

The proposed regulation would expressly apply to owners of tractors pulling 53-foot or longer box-type trailers and owners of 53-foot or longer box-type trailers, drivers of tractors pulling 53-foot or longer box-type trailers, motor carriers and California-based brokers that dispatch 53-foot or longer box-type trailers, and California-based shippers that ship freight in 53-foot or longer box-type trailers.

COMPARABLE FEDERAL REGULATIONS

There are no comparable mandatory federal regulations to control GHG emissions from motor vehicles. As described above, the proposed regulation is based on a voluntary federal program, the U.S. EPA SmartWay Partnership Program.

AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS

ARB 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 proposed regulation. The Staff Report is entitled: Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of the Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles.

Copies of the ISOR with the full text of the proposed new regulatory language 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, First Floor, Sacramento, California, 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing on December 11, 2008.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact person 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, Daniel Hawelti, Air Resources Engineer, On-Road Heavy-Duty Diesel Section, at (626) 450-6149, or by email at dhawelti@arb.ca.gov, or Alex Santos, Staff Air Pollution Specialist, On-Road Heavy-Duty Diesel Section, at (626) 575-6682, or by email at asantos@arb.ca.gov.

Further, the agency representatives and designated back-up contact persons, to whom nonsubstantive inquiries concerning the proposed administrative action may be directed, are Lori Andreoni, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-4011, or Amy Whiting, Regulations Coordinator, (916) 322-6533. 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 website for this rulemaking at www.arb.ca.gov/regact/2008/ghghdv08/ghghdv08.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 in federal funding to the State; or costs or mandate to any local agency or school district whether or not reimbursable by the State pursuant to the Government Code, title 2, division 4, part 7 (commencing with section 17500); or other nondiscretionary cost or savings to state or local agencies. The Executive Officer has determined that the proposed regulatory action would create costs to a State agency in the form of costs to ARB to implement and enforce the regulation and to contract with the California Highway Patrol and air quality management districts and air pollution control districts (Districts) for enforcement. No costs or savings affecting other State agencies were identified.

Staff estimates that the total costs to the ARB for implementation and enforcement of the regulation, including contract costs to Districts and CHP for enforcement, would be approximately \$68 million (2008 dollars) for the period from 2010 through 2020. Annual costs are expected to be about \$6.5 million per year.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by private persons and businesses in reasonable compliance with the proposed regulations are presented below.

In general, the owners of tractors and 53-foot or longer box-type trailers subject to the proposed regulation would incur capital costs associated with the initial purchase and installation of aerodynamic technologies and low-rolling resistance tires. Staff estimates that the cost for a Smartway tractor-trailer combination is approximately \$5,000. However, the industry average trailer-to-tractor ratio is estimated to be 2.5 to 1 per owner. This translates into an average cost of \$9,200 per owner. A state guarantee loan program will be available to help finance early compliance with these requirements.

Operating cost savings resulting from the fuel efficiency improvement associated with operating compliant tractors and trailers will be substantial. For example, in 2010, assuming that most compliant tractors and trailers would realize an 8 percent fuel economy gain when operating at highway speeds, and that diesel fuel is priced at \$3.14 per gallon, the net savings would be approximately \$4,200 per year for a tractor and trailer combination. The fuel savings would fully offset the initial cost of the SmartWay equipment in 1.5 years. This net savings, realized by fleet operators and owner operators of compliant tractors and trailers, is directly attributed to operating cost

savings associated with improved fuel economy. Overall, the benefits of this proposed regulation are approximately two times greater than the cost.

The Executive Officer has made an initial determination that the proposed regulatory action 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. As explained above, individual businesses affected by the proposed regulation may suffer an initial adverse impact due to the up-front costs associated with acquisition of aerodynamic technologies and low-rolling resistance tires. These initial costs are expected to be recouped through savings from reduced fuel use, and the proposed regulation is expected to result in a substantial net savings for the businesses that operate tractors with SmartWay devices and tires and that pull trailers also equipped with these. Businesses that are required to equip trailers with aerodynamic technologies and low-rolling resistance tires but that do not own or operate tractors – including owners of trailer fleets and certain shippers -- may not directly recoup initial costs if they do not directly pay for fuel costs. But ARB staff anticipates that at least some of the fuel savings from trailers equipped with SmartWay devices and tires will be indirectly shared by trailer owners through price structures that reflect fuel savings associated with these trailers.

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

Because of the potentially large up-front capital cost imposed by this regulation on larger fleets where the trailer-to-tractor ratio is high, some businesses with affected fleets will not experience a full return on investment in required equipment for several years. It is also possible that some businesses will choose to consolidate (or merge), change owners, rent vehicles (rather than own), or relocate due to this regulation. It is also very likely that additional businesses will be created or existing businesses expanded to aid in the manufacturing, distribution, installation, and maintenance of aerodynamic technologies and low-rolling resistance tires as a result of the regulation. 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 CCR, title 1, section 4, that the proposed regulatory action would affect small businesses. Staff assumes a small business owner does not own any trailers, but contracts with companies to haul compliant trailers. A detailed assessment of the economic impacts of the proposed regulatory action on small businesses and other businesses can be found in the ISOR.

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

the State of California. The reporting requirements are necessary for the enforcement of the regulation. Without effective enforcement, we cannot achieve the emission reductions and public health benefits associated with the proposed regulation.

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

Interested members of the public may also present comments orally or in writing at the meeting, and by email or other writing before the meeting. To be considered by the Board, written comment submissions not physically submitted at the meeting must be received **no later than 12:00 noon, December 10, 2008**, and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Facsimile submittal: (916) 322-3928

Please note that under the California Public Records Act (Gov. Code, §6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone number, email address, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

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 ten 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 the authority granted in Health and Safety Code sections 38510, 38560, 38560.5, 39600, 39601. This action is proposed to implement, interpret and make specific Health and Safety Code sections 38560, 38560.5, 38580, and 39600.

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 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 and 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, First Floor, Sacramento, California, 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

James N. Goldstene
Executive Officer

Date: October 14, 2008

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 website at www.arb.ca.gov.