

Updated Informative Digest

PROPOSED AMENDMENTS TO THE REGULATION TO REDUCE EMISSIONS OF DIESEL PARTICULATE MATTER, OXIDES OF NITROGEN, AND OTHER CRITERIA POLLUTANTS FROM IN-USE HEAVY-DUTY DIESEL-FUELED VEHICLES

Sections Affected

Amendments to California Code of Regulations (Cal. Code Regs.), title 13, section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles". The regulation is commonly referred to as the Truck and Bus regulation.

Background

At its December 11, 2008, public hearing, the Air Resources Board (Board or ARB) approved the Truck and Bus regulation with the adoption of Cal. Code Regs, title 13, section 2025. The regulation is intended to reduce emissions of diesel particulate matter (PM) and oxides of Nitrogen (NO_x) from nearly one million in-use diesel trucks and buses with a gross vehicle weight rating (GVWR) of over 14,000 pounds that operate in California. The regulation establishes requirements for in-state or out-of-state motor carriers, California-based brokers, vehicle owners and operators, and any California resident who hires or dispatches vehicles subject to the regulation. The emissions reductions will be achieved through the installation of PM filters on existing engines, by replacing vehicles with newer ones having cleaner engines, or repowering with newer, cleaner engines. The reductions are necessary to meet State and federal air quality standards, to reduce premature deaths attributable to exposure to fine particulate matter (PM_{2.5}) emissions and to reduce exposure to diesel PM in support of the Diesel Risk Reduction Plan adopted by the Board on September 30, 2000. The rulemaking was approved by the Office of Administrative Law and filed with the Secretary of State on December 9, 2009 and the regulation became effective on January 8, 2010.

The Truck and Bus regulation was approved on December 12, 2008 by Resolution 08-43, in which the Board directed staff to provide informational updates at Board meetings in January 2009 and December 2009. At the December 2009 Board Hearing, staff presented an analysis that showed that due to the recession, activity of the vehicles covered by the regulation and their emissions were both below the levels anticipated when the regulation was developed. Staff was directed to propose amendments to the regulation that would provide additional compliance flexibility without impairing the State's ability to meet the national ambient air quality standards (NAAQS).

In April 2010, the Board directed staff to update the emissions inventories for on-road heavy-duty vehicles and off-road equipment to reflect the impact of the recession on emissions. The Board further directed staff to develop amendments to the Truck and

Bus and In-Use Off-Road Diesel Vehicle (Off-Road diesel) regulations together that would provide economic relief to both on-road and off-road fleets while continuing to meet the Board's air quality goals and obligations.

At the December 17, 2010, public hearing, the Board adopted Resolution 10-44 in which it delegated to the Executive Officer final authority to approve the originally proposed amendments to the Truck and Bus regulation with modifications as set forth in the Resolution. The Resolution directed ARB staff to incorporate the modifications into the proposed regulatory text and to make the modified regulatory text available for a supplemental comment period of 15 days. On May 19, 2011, ARB issued a Notice of Public Availability of modified Text (15-day Notice) which was made available for a supplemental 15-day comment period. ARB staff did not make additional modifications in response to comments received during the supplemental 15-day comment period. The Executive officer adopted the proposed amendments with modifications on September 19, 2011.

Description of Regulatory Action

The following is a summary of the originally proposed amendments to the Truck and Bus regulation as initially proposed:

New Compliance Requirement for Lighter Vehicles

A new compliance schedule exempts lighter trucks with a GVWR of 26,000 pounds or less from meeting the PM filter requirements, delays the initial replacement requirements until 2015 and limits the replacements to engines 20 years or older until 2020. From 2020 to 2023 all engines need to be upgraded to 2010 model year engines or equivalent.

New Model Year Compliance Schedule for Heavier Vehicles

Amends the engine model year schedule for heavier vehicles to delay the initial PM BACT requirements for one year until January 1, 2012. The amended schedule phases in the PM filter requirements on 1998 model year (MY) or newer engines between 2012 and 2014. Fleets also have the option to comply using the existing original BACT schedule from 2012 to 2014. Replacement requirements for pre-1998 MY engines are phased in from 2015 to 2017, and for all other engines from 2020 to 2023.

Phase-In Option for Small Fleets (1-3 vehicles)

Amends the existing compliance option for small fleets by providing a new option that allows small fleets to delay the initial PM filter requirement for their heavier trucks until 2014. The second and third PM filters must to be installed by 2015 and 2016 respectively. Engine replacements are deferred until January 1, 2020 or later. Starting in 2020, all heavier vehicles in a small fleet will need to comply using the engine model year schedule.

PM Filter Phase-In Option

Amends the regulation to add an optional PM filter phase-in provision. Fleets using this optional provision are required to have 30 percent of their heavier vehicles equipped with PM filters by January 1, 2012, 60 percent by January 1, 2013, 90 percent by January 1, 2014 and 100 percent by January 1, 2016. Replacements are delayed until 2020 or later. Starting in 2020, all heavier vehicles in the fleet must comply using the engine model year schedule.

Credits

Amends the credit provisions to provide credits for fleets that reduced their fleet size compared to a baseline date, installed PM filters early, or purchased hybrid vehicles, alternative-fueled vehicles, or heavy-duty pilot ignition vehicles.

School Buses

Amends the school bus provision to exempt lighter school buses from the PM requirement and replaced the existing PM BACT schedule for school buses with a phase-in schedule that delays initial compliance for heavier school buses by one year and requires the fleet to bring 33 percent of the heavier school buses into compliance by 2012, 66 percent by 2013, and 100 percent by 2014.

Drayage Trucks

Amends the regulation to add a provision to allow fleets with drayage trucks to include all of their drayage trucks in the fleet when determining compliance with the PM Filter Phase-in Option of the Truck and Bus regulation.

Agricultural Vehicles

Amends the agricultural vehicle provision language to clarify how other provisions and exemptions in the regulation could be used for fleets that also have vehicles that do not qualify for the agricultural vehicle provisions. Other amendments postpone reporting deadlines and clarify definitions and restrictions on fleets seeking to replace limited-mileage and low-mileage agricultural vehicles.

Log Trucks

In lieu of retrofitting, adds a new optional phase-in provision for log trucks that permits logging fleets to phase in 2010 model year engines at a rate of ten percent per year from January 1, 2014 to January 1, 2023.

Operation in NOx Exempt Areas

Amends the language for vehicles that operate exclusively in NOx exempt areas to preserve the exemption to delay replacements until 2021. These vehicles remain subject to meeting PM BACT on the same revised schedule as other fleets.

Other Amendments

Various other changes were made to clarify existing requirements, to improve enforceability of the regulation, to streamline reporting and recordkeeping, and to simplify the regulation as follows:

- Clarify the definition of a low-use vehicle by specifying when mileage or hours of operation should be used to determine eligibility;
- Clarify requirements for reporting and determining compliance when changes are made to the fleet during the compliance year;
- Clarify that labeling is required for all two-engine sweepers with Tier 0 auxiliary engines regardless of the compliance option selected;
- Delete certain provisions in the existing regulation because they are no longer needed as a result of the increased flexibility and reduced requirements of the amended regulation. These include the BACT Percentage Limits option, the Fleet Averaging option, and the provisions for cab-over-engine trucks, NOx mileage exempt vehicles, and motorcoaches.

15-Day Changes to Amended Regulation

Modifications to the proposed amendments were made available to the public for comment during a 15-day period starting May 19, 2011. The amendments are summarized as follows:

- Retention of the requirement for lighter school buses to meet PM BACT on the same schedule as heavier school buses.
- Modification of the engine model year schedule for heavier trucks to delay the initial compliance requirement for 2000 model year engines by one year and to require 1996 and 1997 model year engines to be retrofit by January 1, 2012 and upgraded to 2010 engines by 2020.
- Addition of a new compliance option for low-mileage construction trucks that allows the phase-in of PM BACT requirements from 2014 to 2016. Eligible dump trucks can operate up to 20,000 miles per year and other eligible trucks can operate up to 15,000 miles per year. The amendments set limits on the number of trucks that are eligible per fleet and statewide.
- Addition of a credit for fleets that choose to equip all heavier trucks in the fleet with PM filters by January 1, 2014, that delays compliance with the requirement to upgrade to a 2010 model year engine until January 2023. A similar credit also applies to lighter vehicles in the fleet.
- Addition of a new provision that would allow credits earned from retrofitting off-road vehicles with PM filters to be used toward compliance with trucks and vice versa.
- Addition of a new credit for fleets that accelerate the purchase of heavier trucks that have original equipment diesel particulate filters.
- Modification of the NOx exempt area provision to allow the phase-in of PM BACT requirements from 2014 to 2016 for heavier trucks, addition of an exemption from the 2010 model year engine requirement for any lighter or heavier truck that is equipped with a PM filter, and expansion of the NOx exempt area definition to include northern Sonoma County.
- Clarification of existing requirements to improve enforceability of the regulation, to streamline reporting and recordkeeping, and to simplify the regulation.

New Documents

The following were added as additional supporting documents for Appendix J of the 2010 Staff Report.

A new reference (ARB EIB) was added to support estimates discussed in the text on page J-18:

ARB EIB. Emission inventory generated by the ARB Emission Inventory Branch, Planning and Technical Support Division, July 2010. Included in the Access database: rf#1103_RD_FINAL_DATABASE.mdb available at the AB 1085 compliance web page for the Truck and Bus regulation:

<http://www.arb.ca.gov/msprog/onrdiesel/ab1085compliance.htm>

The following replaces an incorrect reference to Fotheringham and Rogerson on page J-24:

Flowerdew, R. and Green, M. Aerial Interpolation and Types of Data in Chapter 7, pages 121-145 in Fotheringham, S. and Rogerson, P., editors. 1994. Spatial Analysis and GIS. London. Taylor and Francis Ltd.

Comparable Federal Regulations

Section 209(a) of the federal Clean Air Act (CAA) preempts states from adopting emission standards for new motor vehicles and engines. However, section CAA 209(b) provides that the Administrator of the U.S. Environmental Protection Agency (U.S. EPA) shall grant California a waiver of preemption, unless certain specified findings can be made. The regulations proposed for amendment do not establish emission standards for new motor vehicles and engines, and thus no issue of federal preemption exists. Additionally, U.S. EPA does not have authority to adopt in-use emission standards relating to the control of in-use motor vehicles. Thus, there are no federal regulations comparable to the Truck and Bus regulation to reduce emissions from in-use on-road diesel vehicles that operate in California.