

OVERVIEW OF THE

Proposed Regulation to Reduce Emissions from In-Use On-Road Diesel Vehicles

New rules to achieve significant emission reductions and protect public health

On December 11, 2008, the California Air Resources Board (ARB) will consider a new regulation to significantly reduce emissions from existing trucks and buses operating in California.

Why is ARB staff proposing this regulation?

Most diesel trucks and buses, which can last 20 years or longer, have little or no emission controls. As a result, these vehicles emit large amounts of oxides of nitrogen or NO_x, which contributes to high levels of smog throughout the state, and soot also known as particulate matter or PM, which is toxic. All told, trucks and buses account for about 30 percent of the statewide emissions of NO_x and about 40 percent of all PM emissions. Emissions from trucks contribute to many adverse health effects, including about 4,500 premature deaths per year. Reducing emissions from in-use trucks and buses is necessary to meet federally imposed clean air standards and to reduce the adverse health effects from truck pollution.

What types of vehicles would be subject to the regulation?

Affected vehicles include on-road heavy-duty diesel fueled vehicles with a gross vehicle weight rating (GVWR) greater than 14,000 pounds, yard trucks with off-road certified engines, and diesel fueled shuttle vehicles of any GVWR. Out-of-state trucks and buses that operate in California are also subject to the regulation. Drayage trucks and private utility-owned vehicles would be subject to the regulation beginning January 1, 2021.

Who must comply with the regulation?

Any person, business, school district, Tribal reservation, or federal government agency that owns, operates, leases or rents affected vehicles. The regulation also establishes requirements for any in-state or out-of-state motor carrier, California-based broker, or any California resident who hires or dispatches vehicles subject to the regulation. In addition, California sellers of a vehicle subject to the regulation would have to disclose the regulation's potential applicability to buyers of the vehicles.

What industries and types of fleets would be subject to the regulation?

Approximately 170,000 businesses in nearly all industry sectors in California, and almost a million vehicles that operate on California roads each year would be affected. Some common industry sectors that operate vehicles subject to the regulation include: for-hire transportation, construction, manufacturing, retail and wholesale trade, vehicle leasing and rental, bus lines, and agriculture.

What would the regulation require?

The regulation would require fleets to install exhaust retrofits that capture pollutants before they are emitted to the air, and to accelerate vehicle replacements to those with cleaner engines. The regulation does not require any vehicles be replaced before 2012, and it never requires all the vehicles within a fleet to be replaced in a single year.

In general, the regulation would require owners to reduce emissions in their fleet by upgrading existing vehicles by using one of three compliance options. The first option would be to install PM retrofits and replace vehicles (or engines) according to a prescribed schedule based on the existing engine model year. The second option would be to retrofit a minimum number engines each year with a high level PM exhaust retrofit and to replace a minimum number of engines meeting the 2010 new engine standards. Finally, the third option would be to meet a fleet average. With this option, a fleet operator could use PM and NO_x emission factors established by the regulation to calculate the average emissions of the fleet. Then, by the applicable compliance date each year, the owner would have to demonstrate that the fleet average emissions for PM or NO_x did not exceed the PM and NO_x fleet average emission rate targets set by the regulation.

Are there special provisions for low-use vehicles?

Yes, low use vehicles (that operate less than 1,000 miles and less than 100 hours per year in

California) are exempt from the vehicle cleanup requirements of the regulation. Depending on the weight class of the vehicle, those operating less than 7,500 (greater than 33,000 pounds gross vehicle weight rating (GVWR)) or 5,000 (less than 33,000 pounds GVWR) miles per year would not be subject to any engine or vehicle replacement requirements until January 1, 2021, but would still be required to have a PM control device.

What other special provisions are provided?

The proposed regulation also has a number of provisions or delays for low-use vehicles, agricultural vehicles, certain unique vehicles, and vehicles operated in cleaner areas of the state. However, by January 1, 2023, all engines would meet the 2010 new engine emission standards.

What if a diesel retrofit is not available or can not be safely installed for a particular vehicle?

If a vehicle cannot be safely equipped with the highest level verified PM exhaust retrofit, the fleet owner may request a one-year extension of the PM compliance deadline. The owner would have to provide documentation to support its claims.

When does the regulation take effect?

For most fleets, the first performance requirements for PM would not begin until January 1, 2011, followed by the NOx requirements in 2013. For fleets with 3 or fewer affected vehicles, none of the performance requirements would begin January 1, 2013. The regulation would be phased in through January 1, 2023.

What are the requirements for school buses?

School buses would only be required to meet the proposed PM requirements and would be subject to several special provisions and timetables specifically designed for school buses. School buses manufactured prior to April 1, 1977, will be required to be removed from service by January 1, 2012. All remaining buses may meet one of the three proposed compliance options. A different PM compliance schedule has been proposed for school buses, with school buses having 2000 and newer model year engines have to install PM retrofit devices by the beginning of 2011.

What are the estimated benefits of the regulation?

The regulation is projected to provide significant diesel PM and NOx emissions reductions that would have a substantial positive air quality impact throughout California. PM emissions are projected to be reduced by about 13 tons per day in 2014 and 3.5 tons per day in 2023. NOx emissions are projected to be reduced by about 124 tons per day and 98 tons per day, for 2014 and 2023, respectively. These reductions are critical towards meeting federal clean air standards. The regulation would also reduce diesel PM emissions by the maximum level achievable from in-use on-road diesel vehicles.

Staff estimates that approximately 9,400 premature deaths statewide would be avoided by the year 2025 from the implementation of the regulation, and would provide associated health benefits would of \$48 to \$69 billion.

What are the estimated costs?

The total increased cost of the regulation is estimated to be \$5.5 billion (2008 dollars). While it is expected that most fleets will pass through these costs their customers, this is expected to result in a negligible impact on consumers, equating to about a few cent increase for a pair of shoes, less than one one-hundredth of a cent increase per pound of produce, or an increase of from \$3 to \$10 for a new car.

Is Incentive money available?

Yes, incentive money is available. Please see the related fact sheet on incentive money for additional information.

Where can I find more information about the regulation?

The staff report and technical support document for the proposed regulation are posted at <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

For additional general information

Please contact ARB's diesel hotline at (866) 6DIESEL (634-3735). You may also obtain this document in an alternative format by contacting ARB at: (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, outside Sacramento). TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service.