



California Diesel Truck Rules

New Opportunities to Improve Public Health, Reduce Global Warming Pollution

Clean Vehicles California

A Fact Sheet of the Union of Concerned Scientists

The California Air Resources Board (CARB) adopted two new truck rules in December, 2008 that will significantly reduce diesel fuel consumption and better protect public health and the environment. One rule, a first-of-its-kind regulation addressing truck global warming pollution, will significantly reduce heat-trapping emissions. The other rule, which addresses smog-forming and particulate pollution, will markedly improve California air quality, saving thousands of lives over the next decade.

Truck Global Warming Rule: Cutting pollution, Saving on fuel consumption

CARB's rule aims to boost heavy-duty-truck fuel efficiency to reduce their global warming emissions. The rule targets the most common type of truck on the highway: a 53-foot-long trailer pulled by a large tractor. The rule would save 1 billion gallons of diesel fuel annually across the country in 2020. The up-front cost of installing fuel efficient technology on tractors and trailers would be offset by reduced fuel costs over time.

The new rule requires both new trucks and those already on the road to add aerodynamic features and more fuel-efficient tires. Such improvements will boost fuel-efficiency by 8 percent, according to a recent UCS report, *Delivering the Green*. Additionally, the regulation requires sleep-in cabs in new tractors to meet Environmental Protection Agency (EPA) SmartWay specifications. The SmartWay program is similar to the voluntary EnergyStar program for consumer appliances, but it focuses on tractors with sleep-in cabs. SmartWay-certified tractors are typically 2 percent more fuel-efficient than standard ones.

The new rule applies to new tractors and trailers starting with the 2011 model year. Truck owners will have to upgrade tractors model year

Smog and Particulate Rule: Preventing thousands of deaths, Saving California billions in health costs.

CARB's rule controlling smog-forming emissions and particulate matter targets all diesel-fueled heavy-duty trucks operating on California's roads, including typical big-rig trucks and school buses. The rule surpasses the EPA's emissions reductions requirements.

Under the rule, most vehicles will need a diesel particulate filter by 2014. Such filters would cut particulate matter more than 95 percent and reduce emissions to levels currently achieved by today's new trucks. CARB's rule phases in between 2011 and 2023 and applies to any diesel truck heavier than 14,000 pounds traveling in the state. It also requires school buses to be equipped with particulate filters, which would better protect young children.

CARB estimates the rule would prevent 9,400 premature deaths and thousands of hospitalizations for heart and lung disease associated with poor air quality over the next 15 years.

Additionally, the rule targets smog-forming emissions from trucks, which account for a third of such pollution in the state. Truck owners will

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Truck Global Warming Rule, continued:

2010 and older with more efficient tires by 2012, and upgrade trailers model year 2010 and older by 2013. Under the rule, fleets will have the option to phase in these upgrades over a six-year period.

UCS has identified three areas where CARB could achieve additional global warming pollution reductions from trucks:

- The rule's tire requirement applies only to van trailers that are at least 53 feet long and the tractors that pull them. UCS estimates these tractor-trailers account for 60 percent of all tractor-trailer miles driven in the state each year. That means that the remaining 40 percent of all tractor-trailer miles, driven by tractors that pull flat beds, tankers and shorter trailers, could still benefit from tire improvements.
- Additional reductions from new tractors and trailers, which offer the greatest potential for cutting pollution and fuel consumption, are available. If CARB required a full set of aerodynamic trailer features and tire upgrades for new trucks, 30 percent more pollution could be eliminated. These improvements would pay for themselves over time and result in an estimated \$30,000 in net savings over the truck's first eight years in service, the average time such a vehicle would be used for long-distance trips.
- Expanding requirements to cover straight trucks—typical delivery trucks with permanently attached tractors and trailers—would also increase overall benefits.

Smog and Particulate Rule, continued:

have the next 15 years to comply by either installing additional emissions controls or upgrading to vehicles that meet EPA standards set to take effect in model year 2010.

Both the San Joaquin Valley and Los Angeles metropolitan area are relying on this regulation to meet federal air quality standards. CARB estimates the rule would prevent 9,400 premature deaths and thousands of hospitalizations for heart and lung disease associated with poor air quality over the next 15 years.

CARB estimates the benefits in reduced hospitalizations, asthma attacks and other health problems would be between \$48 billion and \$68 billion

CARB estimates the new smog and particulate rule will cost \$5.5 billion over the next 15 years, but it calculates that the benefits in reduced hospitalizations, asthma attacks and other health problems would be between \$48 billion and \$68 billion over the same period. Acknowledging that some truck owners would need financial assistance to meet the new standards, the state plans to establish a loan program.

Updated 1/29/09

