



Current California Diesel Regulations

Clean Vehicles California

A Fact Sheet of the Union of Concerned Scientists

The California Air Resources Board (CARB) has passed numerous ground breaking regulations over the past nine years in an effort to reduce the public's exposure to toxic diesel particulate matter (PM) and nitrogen oxide (NOx) emissions. The following is a brief summary of the regulations that have been adopted by the board in recent years with links to the corresponding regulatory website. The successful implementation of these regulations is critical to achieving federal air quality standards and reducing cancer risk from diesel emissions throughout the state.

Diesel off-road agriculture equipment is one of the last remaining sources of diesel pollution that CARB plans to tackle under the Diesel Risk Reduction Plan and this rule is slated to be heard by the board in late 2009 or 2010. For more information about this rule go to:

ARB Regulatory Information: <http://www.arb.ca.gov/ag/agtractor/agtractor.htm>

2008

On-Road Heavy-Duty Truck In-Use Regulation

Adopted: December 12

Location: Sacramento

This regulation is intended to reduce emissions from on-road heavy-duty diesel trucks and buses that are already on the road. The regulation is currently under development, and will likely require retrofits with diesel particulate filters, and early retirement of the oldest trucks. The rule is complicated by the large number of out of state trucks which enter CA on a daily basis.

ARB Regulatory Information: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

Marine Main Engine Fuel Regulation

Adopted: July 24

Location: Sacramento

ARB's regulation will reduce emissions from ocean going vessels (OGVs) through the requirement of cleaner marine fuels. The fuel used to power ships has very high levels of sulfur, which leads to high emission rates of sulfur dioxide and particulates. Over 50 percent of port related emissions in Los Angeles and Long Beach were from ships entering and leaving the port. Using cleaner fuels in these vessels alone could reduce sulfur dioxide and PM by more than 80%.

ARB Regulatory Information: <http://www.arb.ca.gov/ports/marinevess/marinevess.htm>

2007

Port Truck Regulation

Adopted: December 6

Location: El Monte

This regulation specifically addresses trucks servicing the ports and major rail yards in the state. Many port service trucks are owner-operated and face different economic realities than long-haul trucking companies. ARB has chosen to address these trucks separately from the remainder of highway trucks given the overwhelming impact of diesel pollution on port communities. A significant portion of the air quality bond funding approved by voters in November 2006 is expected to be used to help clean up this trucking segment.

ARB Regulatory Information: <http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm>

Shore Power Regulation

Adopted: December 6

Location: El Monte

This regulation aims to reduce emissions from ocean going vessels (OGV) docked in California ports. Increasing numbers of ships will be required to plug into electricity infrastructure, rather than idling main engines during the loading and unloading of cargo.

ARB Regulatory Information: <http://www.arb.ca.gov/ports/shorepower/shorepower.htm>

Off-Road In-Use Fleet Regulation

Adopted: July 26

Location: Sacramento

This regulation applies to public agencies and private businesses that own and operate off-road equipment, including construction, mining, and others. The intent is to lower PM and nitrogen oxide emissions from vehicles and equipment already in operation. The adopted regulation requires equipment fleet owners to start retrofitting or replacing their oldest diesel equipment starting in 2010, with increasingly stringent emission requirements through 2025.

ARB Regulatory Information: <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>

Commercial Harbor Craft

Adopted: November 15

Location: Sacramento

This regulation will reduce PM and NO_x emissions from commercial harbor craft including tug boats, ferries, and other diesel marine harbor craft.

ARB Regulatory Information: <http://www.arb.ca.gov/ports/marinevess/harborcraft.htm>

2006

Stationary Agriculture Engines

Adopted: November 16, 2006

This regulation is intended to reduce PM emissions from stationary engines used in agriculture for irrigation and other purposes.

ARB Regulatory Information: <http://www.arb.ca.gov/diesel/ag/agengine.htm>

Heavy-Duty In-Use Compliance

Adopted: Sept 28, 2006

This regulation requires manufacturers of diesel engines used in medium and heavy-duty trucks to perform emissions testing on select vehicles to ensure that engines continue to meet emission standards.

ARB Regulatory Information: <http://www.arb.ca.gov/regact/inuse06/inuse06.htm>

Emission Reduction Plan for Ports and goods Movement

Adopted: April 20, 2006

This plan adopted by the board calls for a reduction in goods movement and port pollution to below 2001 levels by 2010 and calls for an 85 percent reduction by 2020.

ARB Regulatory Information: <http://www.arb.ca.gov/planning/gmerp/gmerp.htm>

Amendments to Verification, Warranty, and In-Use Compliance Procedures

Adopted: Mar. 23, 2006

This regulation raised the NO₂ limit for verified diesel emission control devices to allow continued use of most currently verified devices through 2009. Created "Plus" designations for verified technology that achieves more stringent NO₂ requirements.

ARB Regulatory Information: <http://www.arb.ca.gov/regact/verpro06/verpro06.htm>



2005

Public Agencies and Private Utilities

Adopted: December 2005, Effective December 2007

The proposed regulation would require public agencies as well as private utilities to begin cleaning up emission from their existing on-road diesel vehicles through retrofits, use of clean fuels, or accelerated replacement.

ARB Regulatory Information: <http://www.arb.ca.gov/msprog/publicfleets/publicfleets.htm>

Cargo Handling Equipment

Adopted: December 2005, Effective December 2007

The proposed regulation would require rail yards and port facilities to purchase cleaner off-road equipment and to retrofit existing equipment with the best available controls to reduce PM emissions.

ARB Regulatory Information: <http://www.arb.ca.gov/ports/cargo/cargo.htm>

Marine Auxiliary Engine Clean Fuel Requirement

Adopted: December 2005, Effective January 2007

The proposed regulation would require ocean going vessels that operate in California coastal waters to use lower sulfur fuel when operating auxiliary engines. The measure will reduce diesel emissions from ships that are operating auxiliary engines while entering, exiting, and staying in California ports.

ARB Regulatory Information: <http://www.arb.ca.gov/ports/marinevess/marinevess.htm>

Heavy-Duty Vehicle Idling

Adopted: October 2005, Effective January 2008

The regulation requires new heavy-duty trucks to come equipped with an automatic engine shutoff device, limiting idling to 5-minutes. It also requires that trucks with sleeper cabs utilize alternatives to idling the main truck engine for heating and cooling during rest periods.

ARB Regulatory Information: <http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>

South Coast Transit Bus Alternative Fuel Requirements

Adopted: September 2005, Effective: 2005

Requires the last 6 remaining diesel transit agencies in the South Coast Air District to purchase alternative fuel buses. These transit agencies now have to purchase natural gas buses which are expected to result in a net reduction of nitrogen oxide emissions in the South Coast.

ARB regulatory information: <http://www.arb.ca.gov/regact/sctransit/sctransit.htm>

On-Board Diagnostics for 2010+ Heavy-Duty Engines

Adopted: July 2005, Effective: January 2010

New emissions standards for diesel engines will require sophisticated emission controls. This measure requires manufacturers of heavy-duty engines to employ on-board diagnostic technology to ensure that emission controls are functioning properly.

ARB regulatory information: <http://www.arb.ca.gov/regact/hdodb05/hdodb05.htm>

Transit Fleet Vehicles

Adopted: February 2005, Effective: 2007

Expands the transit bus fleet rules to include vehicles other than urban transit buses. These other vehicles, including paratransit buses, non-urban buses, and fleet maintenance vehicles will have to meet declining NOx and PM fleet averages starting in 2007.

ARB regulatory information: <http://www.arb.ca.gov/regact/bus04/bus04.htm>



2004

Marine and Locomotive Diesel Fuel

Adopted: November 2004, Effective: January 2006

These amendments made to the California Standards for Motor Vehicle Diesel Fuel extend requirements for low-sulfur diesel to intrastate locomotives and harbor craft. The requirements first go into effect in the South Coast Air District for harbor craft in January 2006 and apply to harbor craft and locomotives in the rest of the state in January 2007.

ARB regulatory information: <http://www.arb.ca.gov/regact/carblohc/carblohc.htm>

Diesel Truck Idling Limits

Adopted: July 2004, Effective: January 2005

Limits the amount of time a heavy-duty diesel truck or bus can idle to 5 minutes. Numerous exceptions exist including such as waiting in traffic, operating auxiliary equipment, or when trucks equipped with sleeping berths are being used during rest periods. Idling is limited to 5 minutes regardless of the sleeping berth exemption when a truck is within 100 feet of a residential area. ARB enforcement officials, air district officials, and local peace officers can enforce the regulation and assess a minimum fine of \$100. To report a violation, call 1-800-END-SMOG or visit

<http://www.arb.ca.gov/enf/complaints/complaints.htm>.

ARB regulatory information: <http://www.arb.ca.gov/regact/idling/idling.htm>

Stationary Diesel Engines

Adopted: February 2004, Effective: January 2005

Establishes new emission standards for stationary engines that are used primarily in emergency backup power applications at schools, public agencies, and businesses. The regulation also requires the use of cleaner fuels, limits the amount of operating time for maintenance, and requires particulate matter reductions for in-use engines. Operating backup engines within 500 feet of a school is prohibited during school hours, unless it is being used in an emergency.

ARB regulatory information: <http://www.arb.ca.gov/regact/statde/statde.htm>

Transportation Refrigeration Units

Adopted: February 2004, Effective: December 2008

Applies to diesel engines used to power refrigeration units on trucks, trains and shipping containers. These engines can be concentrated at rail yards and distribution centers exposing nearby residential communities to diesel exhaust. The regulation requires owners to install emission control devices on these engines.

ARB Regulatory Information: <http://www.arb.ca.gov/diesel/tru.htm>

Portable Diesel Engines

Adopted: February 2004, Effective: January 2010

Applies to diesel fueled portable engines that are used for water pumping, power generation, welding equipment, and other needs. By 2010, all portable engines would have to meet Tier 1, 2, or 3 EPA engines standards. After 2010, fleets of portable engines would have to meet increasingly stringent fleet averages. By 2020, all portable engines would need to effectively meet EPA Tier 4 PM standards.

ARB regulatory information: <http://www.arb.ca.gov/regact/porteng/porteng.htm>



2003

Refuse Trucks

Adopted: September 2003, Effective: December 2004

Requires the use of Best Available Control Technology (BACT) to reduce particulate matter emissions from trucks used in waste collection applications. The rule phases in between 2004 and 2010.

ARB regulatory information: <http://www.arb.ca.gov/regact/dieselswcv/dieselswcv.htm>

Highway and Non-highway Diesel Fuel

Requires the use of ultra-low sulfur (ULSD) (15 parts per million) diesel fuel for highway and non-highway applications starting in June 2006. California's diesel fuel regulations are concurrent with US EPA highway diesel fuel regulation, but accelerate the use of ULSD in non-highway applications by three to five years.

ARB regulatory information: <http://www.arb.ca.gov/fuels/diesel/diesel.htm>

2002

School Bus Idling

Adopted: December 2002, Effective: July 2003

With the goal of reducing children's exposure to diesel exhaust, this measure limits idling of diesel vehicles on or near school property. School buses must turn off their engines when stopped within 100 feet of a school and can idle no longer than 5 minutes when greater than 100 feet from a school. The regulation also applies to delivery vehicles and transit buses that stop at schools or within 100 feet of schools. To report a violation, call 1-800-END-SMOG or visit

<http://www.arb.ca.gov/enf/complaints/complaints.htm>.

ARB regulatory information: <http://www.arb.ca.gov/toxics/sbidding/sbidding.htm>

2000

Transit Buses

Adopted: February 2000, Effective: June 2001

This rule requires transit bus fleets to reduce both NO_x and PM emissions from their urban transit bus fleet. Each transit agency must choose either to continue purchasing diesel bus or convert to purchasing natural gas buses. The regulation also consists of new engine standards for urban buses, demonstration projects of low-emission and zero-emission bus technology, and use of low sulfur fuel.

ARB regulatory information: <http://www.arb.ca.gov/msprog/bus/bus.htm>

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