

National Pavement Expo West

Beth White Manager, Truck and Bus Regulation



Overview

- Status
- Regulation Requirements
- Compliance Tools
- Off-Road Regulation
- Portable Engines
- Enforcement

Status

- Initially considered December 2008
- Currently in effect
- Amendments considered December 17, 2010
 - Submitted to Office of Administrative Law October 28
 - Changes codified by December 2011





Applicability

- Diesel trucks and buses operating in California
 - Greater than 14,000 pounds gross vehicle weight rating (GVWR)
 - Agricultural use yard trucks with off-road engines
 - Interstate, intrastate, international, and other
- Any person, business, or government agency who owns, leases, rents, or sells a vehicle in California
- California based brokers and dispatchers

Applicability Continued

• Excludes:

- Emergency vehicles
- Military tactical vehicles
- Personal use motor homes
- Personal use pickup trucks ≤ 19,500 lbs GVWR
- Historic vehicles
- Excludes most vehicles subject to other in-use regulations
 - Two engine cranes, two engine drill rigs & workover rigs
 - Local and state government owned vehicles
 - 1960-2006 MY solid waste collection vehicles
 - Public urban buses/transit fleet vehicles
 - Private utility vehicles until 2021

Examples of Vehicle Types



Concrete Mixer



Water Truck



Reefer Van



Dump Truck



Hay Squeeze



Fuel Tank Truck



Single Engine Drill Rig



Tow Truck



Passenger Bus

Regulation Overview

- Lighter vehicles (≤ 26,000 GVWR)
 - Compliance schedule by engine MY
- Heavier vehicles (> 26,000 GVWR)
 - Compliance schedule by engine MY
 - Phase-in option
- Added flexibility with reporting
- Provisions for special cases and lower use
- Credits for early action and cleaner vehicles

Lighter Trucks & Buses GVWR 14,001 to 26,000 pounds

Truck and Bus Regulation Compliance Schedule for Lighter Trucks*

- Replace engines
 - 2010 or newer
 - A used truck with a future compliance date
- No PM filter requirement
- No reporting

Engine Model Year	Replace with 2010 engine by:
1995 & older	January 1, 2015
1996	January 1, 2016
1997	January 1, 2017
1998	January 1, 2018
1999	January 1, 2019
2003 & older	January 1, 2020
2004-2006	January 1, 2021
2007-2009	January 1, 2023

Compliance Credit for Lighter Trucks*

- PM retrofit before July 1, 2011 counts towards a heavier truck until 2017
- PM retrofit by 2014, delays the vehicle replacement until 2020
- PM filters on all lighter vehicles by 2014 delays their replacements until 2023
- Reporting required

Provisions Applicable to Lighter Trucks

- Agricultural vehicle extension
- Low use exemption
- NOx exempt area operation
- Manufacturer delays

Heavier Trucks & Buses GVWR more than 26,000 pounds

Truck and Bus Regulation Compliance Schedule for Heavier Trucks*

- PM filters on newer trucks comply for 8 years
- Older trucks replaced with
 - 2010 engine or
 - Used truck with future compliance date
- No reporting

Engine Year	PM Filter	2010 MY Engine
Pre-1994	Not required	January 1, 2015
1994-1995	Not required	January 1, 2016
1996-1999	January 1, 2012	January 1, 2020
2000-2004	January 1, 2013	January 1, 2021
2005 or newer	January 1, 2014	January 1, 2022
2007-2009	Already equipped	January 1, 2023

^{*}More than 26,000 lbs GVWR

Provisions for Heavier Trucks if Complying with Model Year Schedule

- PM filter by 2014 delays replacement until 2020
- PM filters on all heavier vehicles by 2014 delays their replacements until 2023
- Agricultural vehicle extension
- Low use exemption
- NOx exempt area operation
- Manufacturer delays
- Reporting required

Phase-In Option for Heavier Trucks*

- Provides flexibility
- Report <u>all</u> heavier trucks by January 31, 2012
- Originally equipped PM filters count
- Upgrade to 2010 engines starting 2020
- Replace engines that cannot retrofit by 2018

Compliance Date	Vehicles with PM Filters
January 1, 2012	30%
January 1, 2013	60%
January 1, 2014	90%
January 1, 2015	90%
January 1, 2016	100%

Phase-in Option Credits for Heavier Trucks*

- Early PM retrofits
- Fleet size reduction since 2006
- Fleet age reduction since 2006
- Adding fuel efficient hybrids & alternative fueled engines
- Excess PM filters on off-road vehicles

Early PM Filter Credits for Heavier Trucks

- PM filter retrofit before July 1, 2011* delays clean-up of another truck until 2017
 - No credit if still under public funding contract
- Vehicle retrofit by 2014 complies until 2020
- PM filter on <u>all</u> heavy (or light) trucks by 2014 delays their replacement until 2023
- Reporting required

^{*}Credit applies if retrofit filter ordered by May 1 and installed by October 1

Downsizing Credit for Heavier Trucks

- Delays clean-up until January 1, 2016 if fewer trucks operating than on October 1, 2006
 - Credit if retired or if vehicles are not being operated

By January 1	PM Filter Phase-in	Fleet Size Reduction	Adjusted Requirement
2012	30%	25%	5%
2013	60%	25%	35%
2014	90%	25%	65%
2015	90%	25%	65%
2016	100%		100%

Early Addition of Newer Vehicles Credit for Heavier Trucks

- Delays clean-up until January 1, 2017 if fleet age younger than on October 1, 2006
- Maximum credit established January 1, 2012
 - Equal to difference in fleet age multiplied by 5%
 - Up to percent of fleet with OEM filters
 - Credit declines if fleet gets older

By January 1	PM Filter Phase-in	If Fleet 2.2 Years Younger (2.2*5%)	Adjusted Requirement
2012	30%	11%	19%
2013	60%	11%	49%
2014	90%	11%	79%
2015	90%	11%	79%
2016	100%	11%	89%
2017	100%		100%

Hybrids and Alternative Fueled Engine Credits for Heavier Trucks

- Delays clean-up of another truck until 2017
- Adding fuel efficient hybrids
 - 20% fuel efficiency improvement compared to conventional diesel vehicle
- Replacing with alternative fueled engines
- Heavy-duty pilot ignition engines added to fleet

Credits for PM Filters on Off-Road Equipment Count Towards Trucks

- Excess PM filters on off-road vehicles can delay clean-up for heavier trucks until January 1, 2017
- Counts towards phase-in option for trucks
- Excess PM filters on trucks can delay clean-up for off-road vehicles
- Reporting required

Small Fleet Option for Heavier Trucks*

- One to three trucks more than 14,000 pounds
- Small fleet phase-in option for heavier trucks
 - First PM filter by 2014
 - Second PM filter by 2015
 - All must have PM filter by 2016
- Reporting starts 2012
- Upgrade to 2010 engines starting 2020
- Replace engines that cannot be retrofit by 2018

Small Fleet Option 1 Truck

Engine Year	Requirements by January 1 of the Compliance Year											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pre-1994			PM Filte	M Filter & report by January 2014 (or retire by January 1, 2015)								
1994-1995			PM Filte	M Filter & report by January 2014 (or retire by January 1, 2016)			All must					
1996-1999	Report	Report	PM Filte	PM Filter & report by January 2014			have 2010					
2000-2004		Report	PM Filte	M Filter & report by January 2014			model year					
2005-2006			PM Filte	PM Filter & Report by January 2014				engines				
2007-2009	No requirements											

- If one low-mileage construction truck then must opt-in by January 31, 2012 and PM filter by 2016.
- For small fleets that report by 2014, an annual extension can be granted until 2018 if a PM cannot be installed, then the truck will need to be replaced.

Small Fleet Option 2 or 3 Trucks

January 1	Requirement
2012	Report all heavier trucks if any 1996 to 1999 MY engines in the fleet
2013	Report all heavier trucks if any 1996 to 2004 engines in the fleet
2014	One truck must have a PM filter
2015	Two trucks must have a PM filter
2016	All trucks must have a PM filter
2017	
2018	
2019	
2020	Replace all 1999 model year and older engines
2021	Replace all 2000-2004 model year engines
2022	Replace all 2005-2006 model year engines
2023	All must have 2010 model year engines

Other Options for Heavier Trucks*

- Option to comply with original model year schedule
- Opt-in January 31, 2012
- Meet model year schedule starting January 1, 2020

Compliance Date	PM filter on Engine Model Year
January 1, 2012	2003 – 2004 Pre-1994
January 1, 2013	2005 – 2006 1994 – 1999
January 1, 2014	All Engines

Additional Provisions

Low Use Vehicles

- Low use exemption
 - Less than 1000 miles in California and
 - Less than 100 hours if used for stationary work
 - Not required if solely used for loading and unloading vehicle
 - Emergency use excluded
- Three day pass
 - 3 day permit to operate a non-compliant truck
 - One vehicle per year per company
- Reporting required

Attainment Area Operation

- Vehicle operated exclusively in NOx exempt areas
- PM filters 2014 to 2016 for heavier trucks
- Label on both doors or electronic tracking
- Report by January 31, 2012
- No replacements if equipped with PM filter (report for exemption)



NOx Exempt Area Counties - Alpine, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Monterey, Plumas, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma (northern), Trinity, Tehama, and Yuba

Other Provisions

- No penalty for manufacturer delays if filter, engine, or replacement vehicle is ordered 4 months before the compliance deadline
- Leased trucks
 - Contract less than 1 year vehicle responsibility of Lessor
 - Contract 1 year or more Lessor or as written in contract

Vocation Specific Provisions

Agricultural Vehicle Provision Summary

- Opt-in period closed April 29, 2011
- Annually reporting by January 31
- Delays clean-up until 2017 or 2023
- Must stay below the mileage thresholds or have specialty body types
- Replacements with newer trucks
- Total number eligible may not increase
- Label both doors with "AG"



Log Truck Provision

- Opt-in by January 31, 2012
- Phase-in 2010 engines
- No PM retrofits
- No mileage limits statewide
- "AG" label on both doors
- Cannot exceed number of trucks in January 1, 2009
- Total number cannot increase

January 1	2010 engines
2014	10%
2015	20%
2016	30%
2017	40%
2018	50%
2019	60%
2020	70%
2021	80%
2022	90%
2023	100%

Low-Mileage Construction Truck Definition

- Must have GVWR more than 26,000 lbs
- Dump trucks
 - Up to 20,000 miles per year
 - Transfers, bottom dumps, end dumps, side dumps
- Other trucks
 - Up to 15,000 miles per year
 - Concrete mixer, concrete pump, water truck, single engine crane (>35 ton capacity), low-boy
 - Or any contractor owned truck

Low-Mileage Construction Trucks

- PM filters delayed 2014 to 2016
 - Single low mileage construction truck owner delays
 PM filter until January 1, 2016
- Must opt-in by January 31, 2012
- Up to 10 trucks per fleet
 - More can be approved for 2013 compliance year
- Label "CT" on both doors
- Meet model year schedule starting January 1, 2020

Low Mileage Construction Trucks

- Count all vehicle in fleet to determine minimum PM filter percentage
 - Exclude low-usage vehicles (less than 1000 miles)

Compliance by January 1	Minimum Percent of Fleet Complying with PM BACT
2014	33%
2015	66%
2016	100%

Comply with model year schedule starting January 1, 2020



School Buses

- Phase in PM filters if more than 14,000 pounds GVWR
- No PM filter requirement for 1988-1993 MY engines until 2014
- Pre-1977 MY engines replaced by 2012
- No reporting required*, must keep records
- Replace engine by 2018, if cannot be equipped

with PM filter

January 1	PM filter
2012	33%
2013	66%
2014	100%



^{*} Reporting triggered when a school bus cannot be retrofit by deadline

Street Sweepers

- Tier 0 auxiliary engines 50hp or greater
 - 450 hours per year until 2014; 100 hours per year thereafter
 - Initial reporting March 2010
 - Annual reporting January 31
 - Must have "SW" label
- Auxiliary engine must meet PM BACT at same time main engine cleaned-up
- Option to include lighter sweepers to determine downsizing credit

Truck and Bus Regulation

Reporting & Disclosure

Reporting Requirement

- No reporting if using model year compliance schedule
 - Exception for vehicle specific exemptions
- January 31, 2012 for most flexibility options
- Truck Regulations Upload and Compliance Reporting System (TRUCRS) online
 - Compliance certificate
- Motor carriers and California brokers must verify compliance or reported compliance

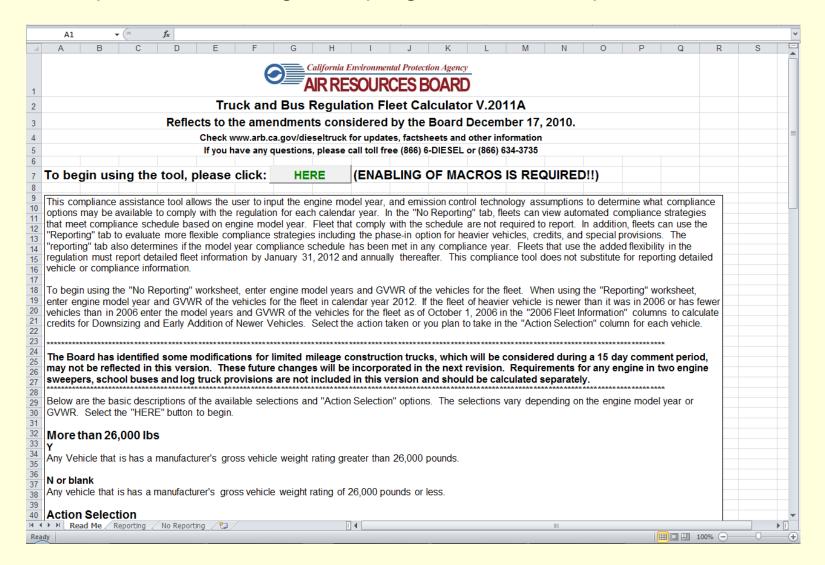
Disclosure Requirement

Disclosure is currently required on the bill of sale

"An on-road heavy-duty diesel or alternative-diesel vehicle operated in California may be subject to the California Air Resources Board Regulation to Reduce Particulate Matter and Criteria Pollutant Emissions from In-Use Heavy-Duty Diesel Vehicles. It therefore could be subject to exhaust retrofit or accelerated turnover requirements to reduce emissions of air pollutants. For more information, please visit the California Air Resources Board website at http://www.arb.ca.gov/dieseltruck."

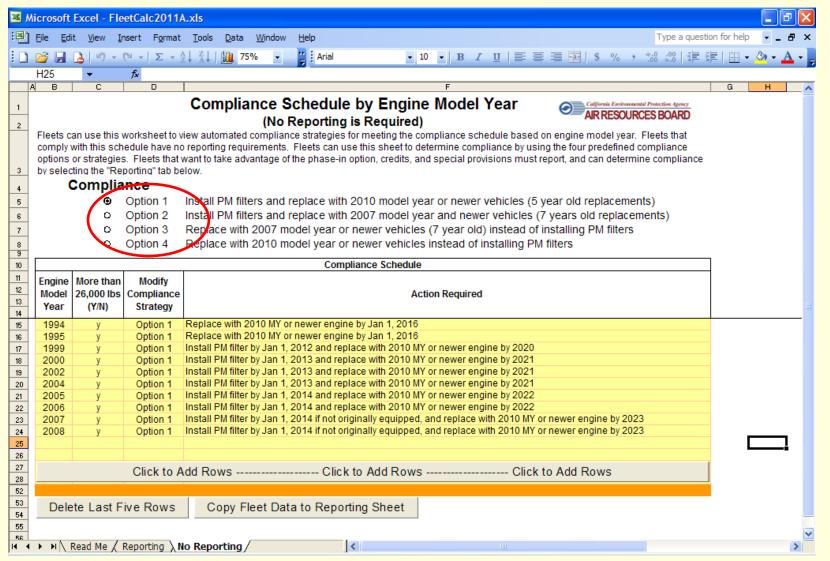
Fleet Calculator

http://www.arb.ca.gov/msprog/onrdiesel/compliancetool.htm

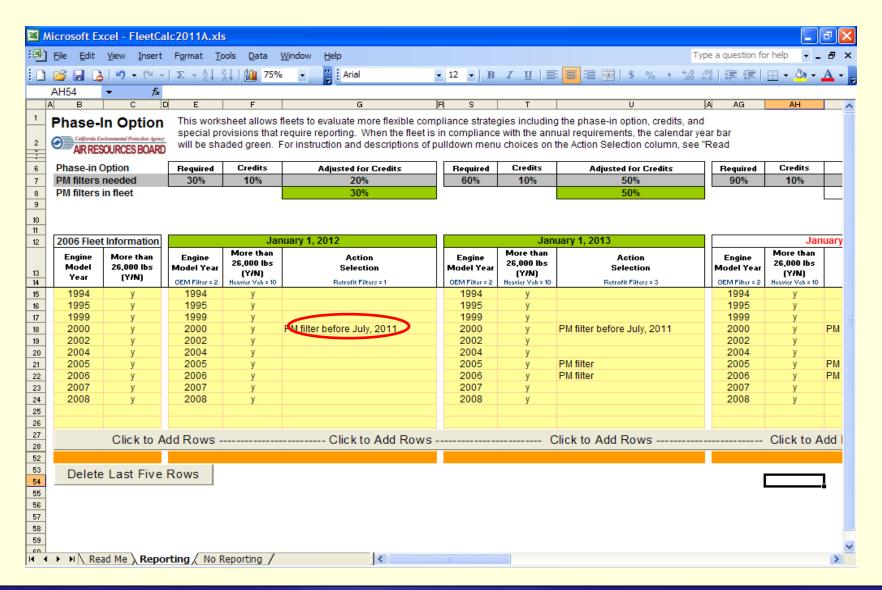


Engine MY Schedule

Fleet Calculator - No Reporting



Fleet Calculator – Reporting Options



Truck Stop - Online Resource

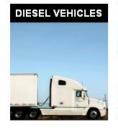
the TRUCK STOP

All diesel fueled trucks, buses, trailers and transportation refrigeration units operating in California, including those based out of state, are required by regulations to take steps to reduce air pollution. Please call the California Air Resources Board (ARB) Diesel Hotline at 866-6DIESEL (866-634-3735) for more information, or click the links below.



Truckstop en Español

Information About Clean Air Requirements For









USEFUL LINKS

Regulation Index Training Funding Resources Index Exhaust Retrofit Guidance Reporting & Registration Printable Materials California Truckin' News

Highlighted Links/Announcements

If you received a recent postcard update from the ARB click on the picture below for more information.



the TruckStop D

Diesel Hotline: (866) 6-DIESEL (866-634-3735)

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Rulemaking | Board Meetings | Laws & Regulations | Data & Statistics | Permits | Calendars

Tuesday, January 4, 2011

UP LINKS

- ->> ARB Programs
 - ->> Diesel Program
 - ->> Mobile Vehicles and Equipment
 - ->> Mobile Sources
 - Manufacturers
 - ->> Operators
 - Statewide Truck and Bus Regulation

PROGRAM LINKS

- Background
- Currently Verified

Diesel Exhaust Retrofits

- Fact Sheets and Advisories
- → the Truck Stop
- Fleet Calculator
- Related Links
- Rulemaking Documents
- ->> 2010
- ->> 2008
- Training
- Truck Regulations Advisory Committee (TRAC)
- What's New Archive
- Workshops / Meetings

RESOURCES

->> Contact Us

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Truck and Bus Regulation

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

This page last reviewed December 21, 2010

Fact Sheets & Advisories

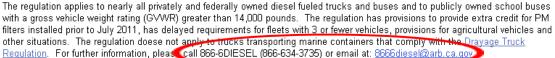
Regulatory Regulation Workshops

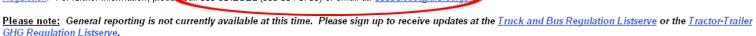
Fleet Calculator Reporting Forms

Training

Background:

The regulation was initially approved in 2008 and requires fleets that operate in California to reduce diesel truck and bus emissions by retrofitting or replacing existing engines. The regulation was amended in December 2010 to provide more time. The amended regulation would require installation of PM retrofits beginning January 1, 2012 and replacement of older trucks starting January 1, 2015. By January 1, 2023, nearly all vehicles would need to have a 2010 model year engines or equivalent.





What's New:

December 17, 2010 Board Hearing (December 21, 2010)

The Air Resources Board approved amendments to the Truck and Bus regulation, the Drayage Truck regulation, and the Tractor-Trailer GHG regulation.

What's New Archive

www.arb.ca.gov/dieseltruck

(866) 634-3735 or 8666diesel@arb.ca.gov

Off-Road Diesel Vehicles

- Regulation for in-use off-road diesel vehicles 25 hp or greater that operate within CA
- Current requirements: Report (through DOORS) and label, 5 min. idling limit, and sales disclosure
- Future requirements: Limits on adding older vehicles, and must reduce fleet emissions beginning 1/1/2014 for large fleets, 1/1/2017 for medium fleets, and 1/1/2019 for small fleets
- Off-Road Regulation Website: www.arb.ca.gov/ordiesel
- DOORS Reporting website:

https://secure.arb.ca.gov/ssldoors/doors_reporting/doors_login.html

Portable Engines

- Registration in PERP is voluntary
 - In lieu of district permitting requirements
- Diesel engines subject to ATCM
 - Fleet average standards starting in 2013
- Local air districts enforce PERP
- FAQ on website www.arb.ca.gov/portable/portable.htm
- portable@arb.ca.gov for general help

California's Mobile Source Diesel Risk Reduction Enforcement Programs

- HDV Inspections (HDVIP)
- Periodic Smoke Inspection Program (PSIP)
- Idling
- Emission Control Label (ECL)

For more information...

- Enforcement Program Website www.arb.ca.gov/enf/enf
- List serves
 www.arb.ca.gov/listserv/ listserv
 _grp.php?listtype=E1
- TruckStop
 www.arb.ca.gov/truckstop

Enforcement Report:

http://www.arb.ca.gov/enf/reports/reports.htm