

# Diesel Vehicle Regulation Overview

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# Why Have Air Pollution Control Regulations?

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Clear day in LA



Smoggy day in LA

# Most Polluted (PM 2.5) Regions in the U.S.

1. Pittsburg
2. Los Angeles Metro
3. Fresno
4. Bakersfield/Kern Co.
5. Birmingham, AL
6. Logan, UT
7. Salt Lake City
8. Sacramento
9. Detroit
10. Washington, D.C. Metro



***4 of the top 10 are in California***

# In-Use Diesel Engine Regulations – Diesel Risk Reduction Program

- Urban buses - 2000
- School bus and delivery vehicle idling - 2003
- Solid waste collection vehicles - 2003
- Transport refrigeration units - 2004
- Stationary compression ignition engines - 2004
- Commercial truck idling - 2004
- Portable engines - 2004
- Locomotive and harbor craft fuel - 2004

# **In-Use Diesel Engine Regulations – Diesel Risk Reduction Program (Continued)**

- **Transit fleet vehicles - 2005**
- **Public agencies and utility on-road fleets - 2005**
- **Port/rail cargo handling equipment - 2005**
- **Ship auxiliary engine fuels - 2005**
- **Off-road (e.g. construction and mining) vehicles - 2007**
- **Drayage (port) trucks - 2007**
- **Commercial harbor craft - 2008**
- **Statewide trucks and buses – December 2008**
- **Agricultural vehicle off-road engines – proposed 2010**

# Fleet Rule for Public Agencies and Utilities

- Apply BACT to each engine in engine model year group
- Follow specific implementation schedule based on engine model-year
- Keep records for and label each vehicle
- Remain in compliance

# Implementation Schedule

Group	Engine Model Years	Applies to All Fleets		Option for Fleets Located in a Low Population County <sup>2</sup> or Granted Low-Population County Status	
		Percentage <sup>1</sup> of Group to use BACT	Compliance Deadline, as of December 31	Percentage of Group to use BACT	Compliance Deadline, as of December 31
1	1960 –1987	20%	2007	20%	2009
		60%	2009	40%	2011
		100%	2011	60%	2013
				80%	2015
100%		100%	2017		
2	1988-2002	20%	2007	20%	2008
		60%	2009	40%	2010
		100%	2011	60%	2012
				80%	2014
100%		100%	2016		
3	2003-2006 (Includes dual-fuel and bi-fuel engines)	50%	2009	20%	2011
		100%	2010	40%	2012
				60%	2013
		100%		80%	2014
				100%	2015

# Changes

## Public Agency and Utilities (PAU)

### Addition of Light Heavy-Duty Engines

- Include all heavy-duty engines in vehicles >14,000 lbs gvwr in record keeping, labeling and total fleet size calculation starting 1/1/2009
- Meet 2009 and future BACT compliance deadlines
- 2009 compliance extension application
  - Light heavy-duty engines only
  - August 1, 2009 application deadline

# Additional Changes Public Agency and Utilities (PAU)

Addition of all 2007+ model year engines certified above 0.01g PM standard

- Add Group 4 Implementation Schedule
  - Apply BACT by 2012
  - Low Population follow Group 3 plus 1 year
- Meet all labeling and record keeping requirements as of 1/1/2009

# Additional Changes

## Public Agency and Utilities (PAU)

### Retirement: Out-of-State Sales

- To qualify as a retired vehicle:
  - Submit VIN stop request to ARB prior to sale of vehicle
  - Registration Hold (VIN Stop) in place prior to sale
  - Third Party Vehicle Seller Contract

# Contact Information

Fleet Rule for Transit Agencies

[www.arb.ca.gov/msprog/bus/bus.htm](http://www.arb.ca.gov/msprog/bus/bus.htm)

Fleet Rule for Public Agencies and Utilities

[www.arb.ca.gov/msprog/publicfleets/publicfleets.htm](http://www.arb.ca.gov/msprog/publicfleets/publicfleets.htm)

Waste Collection Vehicle Regulation

[www.arb.ca.gov/msprog/SWCV/SWCV.htm](http://www.arb.ca.gov/msprog/SWCV/SWCV.htm)

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# In-Use Off-Road Diesel Vehicle Regulation



# Applicability

Regulation applies to any person, business, or government agency who owns or operates any diesel-fueled or alternative diesel fueled off-road vehicle horsepower within California

- Applies to vehicles  $\geq 25$  horsepower
- Applies to the “drive” engine only
- Includes out-of-state vehicles brought into California
- Excludes vehicles primarily used (>50 time) for agricultural operations
- Excludes vehicles used for personal use

# What Does the Regulation Require?

- By 2008:
  - 5 minute limits on idling
  - Disclosure when selling vehicles
- By 2009:
  - Written idling policy
  - Initial reporting
  - Only cleaner vehicles may be added to fleets
- by 2010:
  - For many fleets, must have begun retrofitting and turning over vehicles
- Annual requirements: Reporting, record keeping, restrictions for adding vehicles to fleet

# General Compliance Approach

- Requirements for both NOx and PM
- NOx requirements must be met first, then PM requirements must be met

Fleet Size	Description	Dates and Requirements
Small	Small business $\leq 2,500$ hp, or Municipality $\leq 2,500$ hp, or Municipality fleet in low-pop county	2015-2025 PM only
Medium	Fleet with 2,501 to 5,000 hp, or Large business with $\leq 5,000$ hp	2013-2020 PM and NOx
Large	Fleet with more than 5,000 hp	2010-2020 PM and NOx

# NOx and PM Requirements

Two ways to meet the NOx and PM requirements (the lesser of the requirements can be done):

- Fleet average targets approach
  - Meet emissions targets set by ARB by any means
  - Targets for both NOx and PM, OR
- Best Available Control Technology (BACT) approach:
  - Turn over engines at a rate of 8%/10% of total fleet horsepower per year for NOx
  - Install PM VDECS on 20% of total fleet horsepower per year

# In-Use Off-Road Diesel Vehicle Regulation



**For more information on the off-road regulation:**

**(866) 6DIESEL**

**(866) 634-3735**

**Off-road reporting information (DOORS):**

**(877) 59DOORS**

**(877) 593-6677**