

# In-Use Off-Road Diesel Vehicle Regulation



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**California Environmental Protection Agency**  

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**Air Resources Board**



# Outline

- Off-Road Regulation Requirements
  - Applicability
  - In Effect Now
  - April 1-August 1, 2009 (Initial reporting)
  - 2010 and beyond
  - Enforcement
  - Regulatory Amendments
- Contacts

# Off-Road Regulation Requirements



# Applicability

Regulation applies to any fleet with diesel-fueled or alternative diesel fueled off-road vehicles in California:

- Vehicles  $\geq$  25 horsepower
- “Drive” engine only (except 2-engine cranes)
- Includes out-of-state vehicles brought into California and vehicles owned by out-of-state owners
- Excludes vehicles primarily used ( $> 50\%$  time) for agricultural operations\*
- Excludes vehicles used for personal use

\* Agricultural guidance document available at:

<http://www.arb.ca.gov/msprog/ordiesel/guidance/ag-operations.pdf>

# Applicability Cont.

- What is considered an off-road vehicle?
  - Vehicles that were intended to be used off-road
  - Cannot be registered to drive safely on-road
  - A workover rig\*
  - Two-engine cranes being added
- Excludes vehicles designed to operate on-road regardless of use

\* Advisory for workover rigs with off-road engines is located at:  
<http://www.arb.ca.gov/msprog/ordiesel/guidance/onroadengines.pdf>

# Requirements Vary by Fleet Size

Fleet Size Category	Description
Small	Fleet with $\leq 2,500$ hp, or Municipal fleet in low population county
Medium	Fleet with 2,501 to 5,000 hp
Large	Fleet with more than 5,000 hp, or State or Federal Government fleet

# Parts of Regulation in Effect Now

- 5-Minute Limit on Idling
- Disclosure of Applicability
- Can not add Tier 0 engines to fleet
- Written 5 minute idling policy



# 5 Minute Limit on Idling

- Effective June 15, 2008
- Exemptions from this requirement:
  - Queuing
  - Verifying that the vehicle is in safe operating condition
  - Testing, servicing, repairing or diagnostic purposes
  - If necessary to accomplish work for which the vehicle was designed (such as operating a crane)
  - If required to bring the machine system to operating temperature
  - If necessary to ensure safe operation of the vehicle
- Can apply to ARB Executive Officer to idle > 5 min. if reason not covered in exemptions
- Enforcement of 5 min. idling
  - Enforcement advisory at:  
<http://www.arb.ca.gov/msprog/ordiesel/guidance/idling.pdf>

# Disclosure of Applicability

- Effective June 15, 2008
- Disclosure of regulation applicability:
  - Persons selling in California to California buyer
  - Disclosure records must be kept for 3 years
  - Disclosure not required for manufacturers selling to dealers
  - Language must be included on the bill of sale, invoice\*, or price quote\*

\* Not included in regulation language, guidance given by off-road staff

# Disclosure of Applicability Cont.

**“When operated in California, any off-road diesel vehicle may be subject to the California Air Resources Board In-Use Off-road Diesel Vehicle Regulation. It therefore could be subject to 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/msprog/ordiesel/ordiesel.htm>”**

# Beginning March 1, 2009

- Written 5 minute idling policy
  - Required for medium and large fleets
  - Must make idling policy available to all vehicle operators in fleet
  - Guidance document for idling policy available at:  
<http://www.arb.ca.gov/msprog/ordiesel/guidance/writtenidlingguide.pdf>
- Can no longer add Tier 0 vehicles to fleet:
  - MY 1998 and earlier engines – 25-49 hp
  - MY 1997 and earlier engines – 50-99 hp
  - MY 1996 and earlier engines – 100-174 hp
  - MY 1995 and earlier engines – 175-750 hp
  - MY 1999 and earlier engines – > 750 hp

# Initial Reporting: April 1 - Aug.1, 2009

- Initial reporting varies by fleet size
  - Fleets must report their fleet information as it was on March 1, 2009
  - Fleets must report their information to ARB by their designated reporting date
  - Reporting is free, no registration fee

<b>Fleet Size Category</b>	<b>Initial Reporting Date</b>
Large	April 1, 2009
Medium	June 1, 2009
Small	August 1, 2009

Note: Annual reporting in later years - Vehicles added to fleet must be reported within 30 days to the DOORS system

# What is DOORS?

- Diesel Off-road On-line Reporting System
  - An on-line tool which allows fleets to compile and report fleet data
  - Meets the reporting requirements
  - Retains fleet data for future reporting
  - Includes additional features such as automated compliance planning
  - Enforcement staff will be able to access data from DOORS

[https://secure.arb.ca.gov/ssldoors/doors\\_reporting/reporting.php](https://secure.arb.ca.gov/ssldoors/doors_reporting/reporting.php)

# Vehicle Labeling

- All vehicles subject to the regulation must be labeled
  - ARB assigns Equipment Identification Number (EIN) after initial reporting period; label stays with vehicle for life
  - Fleets must label vehicles within 30 days of receiving EIN; labels not issued by ARB
  - Label dimensions/specifications found in section 2449(f)\*
  - Label vendor lists will be provided with the EINs



**DB8B97**

\* Labeling guidance available at:

<http://www.arb.ca.gov/msprog/ordiesel/faq/faq-labeling.pdf>

# Performance Requirements

- Performance requirements must be met by March 1 of each year

<b>Fleet Size Category</b>	<b>Dates and Requirements</b>
Large*	2010-2020 PM and NOx
Medium*	2013-2020 PM and NOx
Small	2015-2025 PM only

\* Same requirements for large and medium fleets, only initial compliance date varies.

# NOx Requirements

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

- NOx fleet average targets requirements
  - Meet NOx emissions targets set in regulation by any means

or

- Best Available Control Technology (BACT) requirements:
  - Turn over engines at a rate of 8% of total fleet horsepower per year (after 2015, the 8% turnover rate increases to 10%)

# NOx BACT Requirements

- Must turn over Tier 0 and Tier 1 vehicles first (before addressing PM standard)
- Compliance options for NOx BACT turnover requirements:
  - Replace older vehicles with new or used vehicles
  - Replace diesel vehicles with electric or alternative fuel vehicles
  - Repower older engines with a Tier 2 or higher engines
  - Retire vehicles from fleet
  - Designate vehicles as low use (used < 100 hours per year)
  - Install NOx verified diesel emission control strategy (VDECS)

# PM Requirements

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

- PM fleet average targets requirements
  - Meet PM emissions targets set in regulation by any means

or

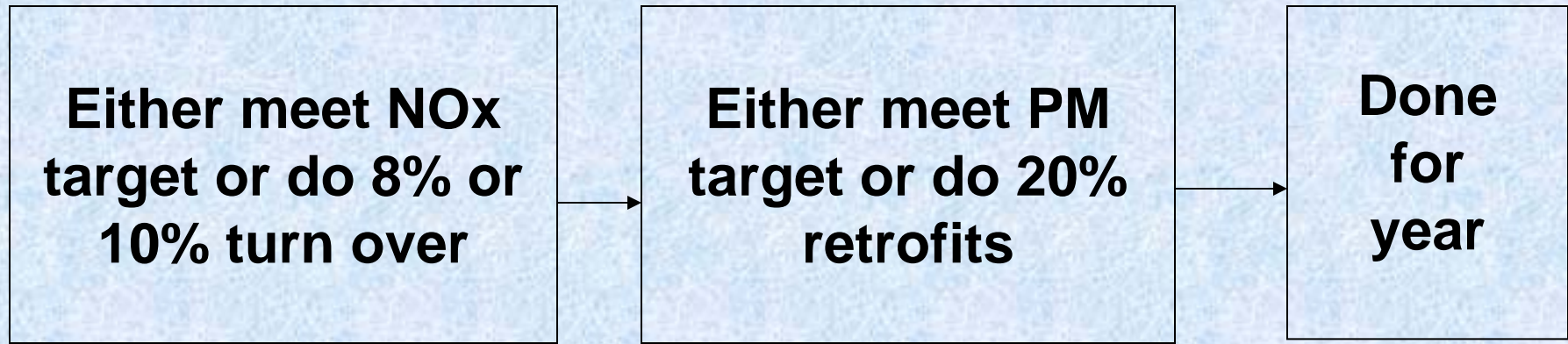
- Best Available Control Technology (BACT) requirements:
  - Install verified diesel emission control strategy VDECS (also referred to as PM retrofits) on 20% of total fleet horsepower per year

# PM BACT Requirements

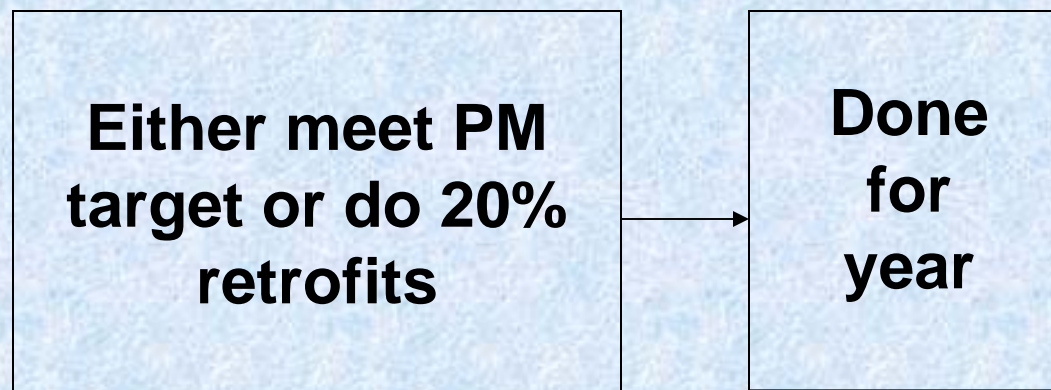
- Compliance options for PM BACT retrofit requirements:
  - Install PM VDECS
- Retirement of Tier 0s for a fleet decreasing in horsepower
  - If a fleet is “shrinking” from the previous year, the Tier 0 horsepower retired (and not replaced) from the fleet can count towards PM BACT compliance
  - Example: If a fleet retires 20% Tier 0 vehicles, both the PM and NOx BACT requirements are fulfilled

# Annual Compliance Process

Large and Medium Fleets: NOx\* and PM Requirements



Small Fleets: PM Requirements ONLY



\*Captive attainment area fleets must only meet the PM requirements

# Exemptions from Engine Turnover (NOx) Requirements

- Small fleets
- Captive area attainment fleets
- Vehicles less than 10 years old (vehicle age)
- Specialty vehicles if certain criteria are met
- Vehicles retrofit in past 6 years
- Tier 4 or Tier 4 Interim vehicles

# Exemptions from Retrofit (PM) Requirements

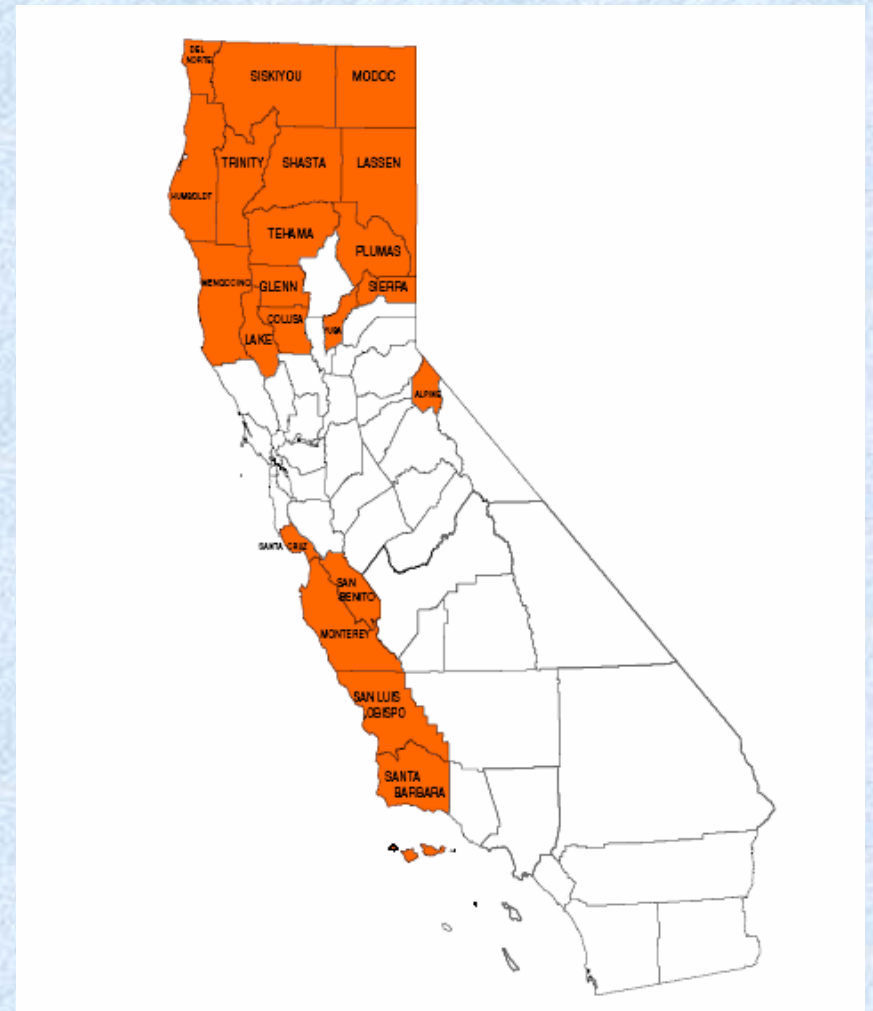
- Engines in vehicles less than 5 years old
- Engines for which there is no retrofit available or for which one cannot be safely installed
- New engines that come with an OEM diesel particulate filter
- Engines already retrofit with the highest level VDECS at time of installation

# Other Exemptions and Compliance Extensions

- Exempt from all but recordkeeping / reporting / labeling
  - Low-use vehicles (non-resettable hour meter)
    - Operated less than 100 hours/year
  - Emergency vehicles
  - Dedicated snow removal vehicles
  - Agricultural equipment (>50%)
- Compliance extensions
  - Manufacturer delays for retrofits or new engines (4 month provision)
  - Delay of Tier 4 interim or final vehicles

# Special Provisions for Attainment Counties

- Fleets captive to listed attainment counties
  - Do not need to meet turnover requirements or NOx fleet averages
- These counties are always in: they cannot fall out of this provision, and other counties cannot come in
- Fleets can travel within multiple attainment counties



# Annual Record keeping

- Records must be kept between reporting periods:
  - Changes in the fleet since last reported
  - Newly purchased vehicles
  - Rebuilt engines
  - VDECS that have failed
  - VDECS serial numbers
  - Manufacturer delays
  - Executive Officer approvals for extensions, approval of alternative fuels, idling exceptions, etc.
- Records must be kept until the vehicle is retired, or 2030 (whichever is earlier)
- If enforcement requests records, fleet must turn over documents within 5 business days

# Rental and Leased Vehicles

Vehicles owned by a rental or leasing company

- If rented/leased < 1 year
  - Vehicle must be included in the owner's fleet
- If rented/leased >= 1 year
  - May be excluded from the owner's fleet, and included in the lessee's fleet only if written into the lease agreement
- Leases occurring before June 15, 2008
  - If "leased" as defined in California Uniform Commercial Code for at least one year, the vehicle must be included in the lessee's fleet (not owner)

Persons who provide financing in the form of "finance leases," as defined in California Uniform Commercial Code 10103(a)(7) do not "own" such vehicles for the purposes of this regulation

# Out-of-State Fleets

- All vehicles operating in California that are owned by an out-of-state company must still comply with the regulation
  - If they report initially in 2009, they can comply with the fleet average or BACT approach
  - If they are a new fleet that enters California after March 1, 2009, they must meet the fleet average targets upon entering the state
    - Stricter than for in-state fleets
  - All vehicles brought into California must be reported to ARB within 30 days of entering the state

# Enforcement of Idling and Disclosure Requirements

- Enforcement of 5 min. idling
  - Field audits began October, 2008
  - Citations and fines have been given
    - First time offense: \$300 per violation
    - Subsequent offenses: Can be \$1,000 to \$10,000 per violation
- Enforcement of disclosure provision
  - Field audits conducted October, 2008
  - Citations and fines have been given
    - First time offense: \$500 per violation
    - Subsequent offenses: \$1,000 to \$10,000 per violation

# Enforcement of PM and NOx Requirements

- Violation of the NOx provisions
  - Up to \$1,000 per vehicle per day of non-compliance
- Violation of the PM provisions
  - Up to \$10,000 per vehicle per day of non-compliance
  - If a citation is given, and the violation is not corrected, the fines can go up to \$40,000 per vehicle per day of non-compliance

# Approved Modifications to the In-Use Off-Road Diesel Vehicle Regulation

- Extend the double credit for early PM retrofits deadline by 10 months from March 1, 2009 to January 1, 2010
- Removal of changing fleet size requirements
- Disclosure of applicability record retention requirements (all sellers)
- Clarify the provision for delay of Tier 1 turnover
- VDECS reporting includes serial number and family name (not model)

# Legislative Update

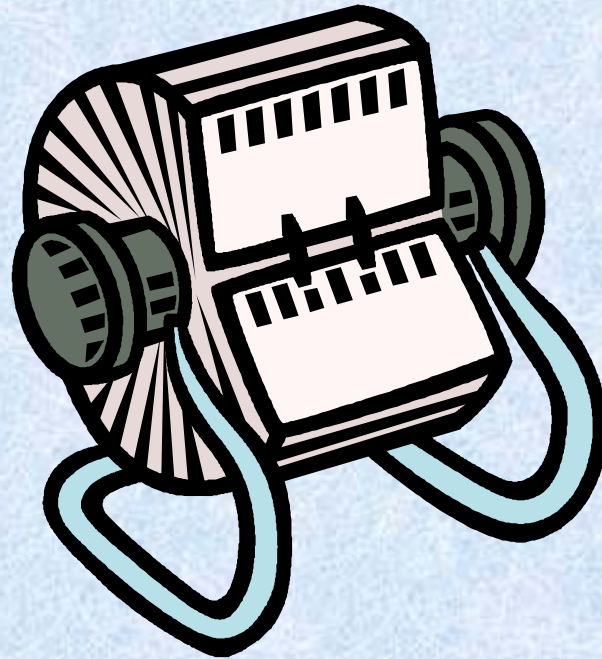
- Fleets now using their off-road vehicles less than they did as of 7/1/07, may take credit for reduced fleet activity to satisfy turnover and retrofitting requirements in 2010 and 2011
- Fleets will be given credit (both PM and NOx) for any vehicle retirements made between March 1, 2006 and March 1, 2010 as long as total fleet horsepower decreased from the previous year
- For turnover and retrofit requirements (2011-2013), fleets may complete 20% of the total turnover and retrofitting by March 1, 2011, an additional 20% by March 1, 2012, and the balance by March 1, 2013.

# Next Steps

- Public Notice and Staff Report
  - Completed and posted early June
- Board Hearing: July 23 and 24



# Website and Contacts



**California Environmental Protection Agency**

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**Air Resources Board**



# Off-Road Contacts

## General Off-Road Regulation Questions:

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Knowledge Center - <http://www.arb.ca.gov/msprog/ordiesel/knowcenter.htm>

Off-Road Regulation - [www.arb.ca.gov/msprog/ordiesel/ordiesel.htm](http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm)

**Diesel Hotline** - 1-866-6DIESEL (1-866-634-3735)

**DOORS Hotline** - 1-877-59DOORS (1-877-593-6677)