Truck and Bus Regulation: Agricultural Provision Reporting Training

February – April 2011
Mobile Source Control Division

Outline

• Overview of the rule consistent with amendments considered by the Board in December 2010
• Agricultural provision
• How to report

Areas of the State not meeting Federal Air Quality Standards

8-Hour Ozone

PM2.5 Annual

15 areas violate the standard
2 areas violate the standard

Diesel Particulate Matter Exposure

• 70% of known cancer risk from all air toxics
• Trucks and buses largest source of diesel particulate matter (PM)
• Diesel Risk Reduction Plan adopted in 2000
  – Risk reduction goals by 2010 and 2020
  – Stringent New Engine Standards
  – Cleaner Diesel Fuel (< 15 ppm sulfur)
  – Ensure In-Use Emissions Performance
  – Aggressive Reductions from In-Use Engines

In-Use Diesel Regulatory Activity

- Urban Buses (2000)
- Stationary Engines (2004)
- TRUs (2004)
- Truck and Bus Idling (2004)
- Portable Engines (2004)
- Transit Fleet Vehicles (2005)

- Public Fleets & Utilities (2005)
- Cargo Handling Equipment at Ports and Rail Yards (2005)
- Port Trucks (2007)
- Off-Road Vehicles (2007)
- Truck and Bus Regulation (2008)
- Off-Road Agricultural Vehicles (Planned for 2011 or later)

Future In-Use Mobile Agricultural Equipment Regulation

• Regulation will focus on self-propelled off-road vehicles used in agricultural operations
• Current progress:
  – Development of agricultural off-road vehicle inventory
  – ARB working with ag industry representatives to develop survey for improvement of inventory
  – Fall/Winter 2009: Survey distributed
• Proposed regulatory schedule:
  – Late 2011/early 2012: Initial release of regulatory proposal and workshops
  – 2012: Regulatory proposal to Board

For more information, contact:
Kim Heroy-Rogalski, Manager
Off-road Implementation Section
kheroyro@arb.ca.gov
(916) 327-2200

Website: http://www.arb.ca.gov/ag/agtractor/agtractor.htm
For updates, sign up for the email list at:
http://www.arb.ca.gov/listserv/listserv_grp.php?listtype=A0
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

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

Examples of Vehicle Types

- Concrete Mixer
- Water Truck
- Hay Squeeze
- Tow Truck
- Fuel Tank Truck
- Passenger Bus
- Single Engine Drill Rig
- Dump Truck
- Reefer Van

Status

- Initially considered December 2008
- Currently in effect
- Amendments considered December 17, 2010
- Additional 15-day public comment period
  - Construction vehicles
  - Bubble concept
  - Clarifications
- Ag letters

Emission Control Terminology

- “PM filter”
  - Originally equipped on engines since 2007
  - Most effective PM filter retrofit on existing engines
    - Verified Diesel Emission Control Strategy (DECS)
    - www.arb.ca.gov/msprog/decsinstall/decsinstall.htm
- “Replace with 2010 engine”
  - Engine manufactured 2010 or later
  - Existing engine retrofit with PM/NOx retrofits
    - NOx retrofits not currently available

Regulation Overview

- Compliance schedule by weight & engine model year
  - No reporting required
  - No PM filters for lighter trucks
- Added flexibility for heavier trucks with reporting
- Provisions for special cases and lower use
- Credits for early action and cleaner vehicles
- Sales disclosure requirement
Lighter Trucks & Buses
GVWR 14,001 to 26,000 pounds

Compliance Schedule for Lighter Trucks*

<table>
<thead>
<tr>
<th>Engine Model Year</th>
<th>Replace with 2010 engine by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 &amp; older</td>
<td>January 1, 2015</td>
</tr>
<tr>
<td>1996</td>
<td>January 1, 2016</td>
</tr>
<tr>
<td>1997</td>
<td>January 1, 2017</td>
</tr>
<tr>
<td>1998</td>
<td>January 1, 2018</td>
</tr>
<tr>
<td>1999</td>
<td>January 1, 2019</td>
</tr>
<tr>
<td>2003 &amp; older</td>
<td>January 1, 2020</td>
</tr>
<tr>
<td>2004-2006</td>
<td>January 1, 2021</td>
</tr>
<tr>
<td>2007-2009</td>
<td>January 1, 2023</td>
</tr>
</tbody>
</table>

*Vehicles 14,001 to 26,000 lbs GVWR

Compliance Credit for Lighter Trucks*

- Install PM filter by 2014, exempt from replacement until 2020
- Credit towards heavier truck if lighter truck equipped with a PM retrofit by July 1, 2011
- Reporting required
- No other compliance options
- Few other extensions

*Vehicles 14,001 to 26,000 lbs GVWR

Heavier Trucks & Buses
GVWR more than 26,000 pounds

Compliance Schedule for Heavier Trucks*

<table>
<thead>
<tr>
<th>Engine Year</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-1994</td>
<td>No requirements until 2015, then 2010 engine</td>
</tr>
<tr>
<td>1994-1995</td>
<td>No requirements until 2016, then 2010 engine</td>
</tr>
<tr>
<td>1996-1999</td>
<td>PM filter from 2012 to 2020, then 2010 engine</td>
</tr>
<tr>
<td>2000-2004</td>
<td>PM filter from 2013 to 2021, then 2010 engine</td>
</tr>
<tr>
<td>2005-2006</td>
<td>PM filter from 2014 to 2022, then 2010 engine</td>
</tr>
<tr>
<td>2007-2009</td>
<td>No requirements until 2023, then 2010 engine</td>
</tr>
<tr>
<td>2010</td>
<td>Meets final requirements</td>
</tr>
</tbody>
</table>

*Vehicles more than 26,000 lbs GVWR

Phase-In Option for Heavier Trucks*

- Provides more flexibility
- Report all heavier trucks by January 31, 2012
- Originally equipped PM filters count
- Upgrade to 2010 engines starting 2020

<table>
<thead>
<tr>
<th>Compliance Date</th>
<th>Vehicles with PM Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2012</td>
<td>30%</td>
</tr>
<tr>
<td>January 1, 2013</td>
<td>60%</td>
</tr>
<tr>
<td>January 1, 2014</td>
<td>90%</td>
</tr>
<tr>
<td>January 1, 2015</td>
<td>90%</td>
</tr>
<tr>
<td>January 1, 2016</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Vehicles more than 26,000 lbs GVWR
Credits for Heavier Trucks*

- Reduce requirement in phase-in option
  - For fleets downsized since 2006
  - PM filter installed before July 1, 2011
  - Adding fuel efficient hybrids & alternative fueled
  - Early purchase of 2007 or newer engines before 2012
- Credits expire January 1, 2017
- Reporting required

* Vehicles more than 26,000 lbs GVWR

Small Fleet* Option for Heavier Trucks**

- Phase-in option for heavier trucks
  - First PM filter by 2014
  - Second PM filter by 2015
  - All must have PM filter by 2016
- Replace engines that cannot be retrofit by 2018
- Upgrade to 2010 engines starting 2020
- Reporting starts January 31, 2012

* Small fleets are one to three trucks over 14,000 lbs GVWR
** Vehicles more than 26,000 lbs GVWR

PM Filter Options for Heavier Trucks*

- Any truck equipped with a PM filter by January 1, 2014 complies until 2020
- PM filter on all heavy trucks in fleet by 2014, no replacements until 2023
- Report by January 31, 2014

* Vehicles more than 26,000 lbs GVWR

Additional Provisions Summary

- Low use
- Agricultural vehicles
- Log truck option
- NOx exempt areas
- Construction trucks

Low Use Extensions for All Trucks

- Low Use Provision
  - Exempt from cleanup
  - Less than 1000 miles in California and
  - Less than 100 hours of PTO for stationary work
  - Emergency use excluded from usage
- Three day pass
  - 3 day permit to operate a non-compliant truck
  - One vehicle per year per company
- Reporting required

Agricultural Vehicle Provision Summary

Delay emission reductions until 2017 or 2023

- Dedicated agricultural vehicles
- Stay below the mileage thresholds
- Apply by April 29, 2011 then report annually on January 31st
- Limited to fleet size on January 1, 2009
- Label both vehicle doors with "AG"
- No mileage limits for specialty vehicles
Agricultural Operations

- The activity of growing or harvesting crops for the primary purpose of making a profit or providing a livelihood including any horticultural, viticultural, aquacultural, forestry, dairy, livestock, poultry, bee or farm product
  - Excluded raising plants at nurseries exclusively for retail
- The cutting or removing of timber and other solid wood products such as Christmas trees and biomass for commercial purposes
  - Excludes conversion of forest lands to other land uses

Agricultural Vehicle Mileage Limits

- Begin January 1, 2011
- Delay until 2017 based on engine model year

<table>
<thead>
<tr>
<th>Engine Year</th>
<th>Annual Mileage Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 or newer</td>
<td>25,000</td>
</tr>
<tr>
<td>1996-2005</td>
<td>20,000</td>
</tr>
<tr>
<td>Pre-1996</td>
<td>15,000</td>
</tr>
</tbody>
</table>

- Extension continues until 2023 for trucks operated less than 10,000 miles/yr since January 1, 2011

Specialty Agricultural Vehicle Extension

- Compliance delayed until January 1, 2023
- Must be approved for extension, apply by April
- Limited to 2,200 statewide, 1,100 in the San Joaquin Valley
- Unlimited miles

Specialty Agricultural Vehicles

- Body and use type
  - Cotton module movers
  - Farmer-owned water trucks, not for hire
  - Feed trucks that dispense feed to livestock. Not to resupply storage silos.
  - Exclusively supplies crop dusting aircraft
  - Lettuce harvest trucks with self loading beds (Fabco truck)

Limit on Number of Qualifying Trucks

- May not exceed fleet size as of January 1, 2009
- Total number of qualifying vehicles cannot increase from year to year

Agriculture Vehicle Replacement

- Replacements must be one model year newer
- Can replace with any other vehicle if:
  - Combined mileage placed in service must remain below threshold of original vehicle in the compliance year
  - In next compliance year, mileage limit is based on the model year of replacement vehicle
  - Report odometer readings and document changes
Agricultural Vehicle Definitions

• Farmer owned to support operations
• Non-farmer owned
  – Fertilizer or pesticides delivery truck
  – Specially designed for ag use (in-field)
  – Farm to first processor trucks

Farmer Owned Trucks

• Owned by a “farming business”
  – Owner/tenant managing a farm for profit
• Used for supporting farming operations or to transport harvested crops
  – Includes bee keeping businesses
  – Service trucks, cattle trucks, flatbeds, etc.
• Excludes:
  – Personal-use vehicles
  – Vehicles that are rented or leased for non-ag use
  – Vehicles used in transportation business

Farming Business

• Business involved in the cultivating, operating, or managing a farm for profit, either as owner or tenant
  – Excludes providing agricultural services such as, landscape services, veterinary services, farm labor or management for a fee or on contract basis, or engaged in the business of artificial insemination, or raising or caring for dogs, cats and other pet animals
• Forest harvest

Fertilizer or Pesticide Delivery Trucks

• Non-farmer owned
• Company must have valid fertilizer or pest control license
• Used exclusively to deliver chemicals (fertilizer and pesticides) that require placards from distribution center to farm

Designed for In Field Work

• Non-farmer owned
• May still qualify if not farmer owned
  – Trucking company or farm service provider
• Designed for in-field operations
  – Manure spreaders, feed mixers, free stall bedding, water trucks, hay squeeze
• Excludes:
  – Trucks and buses used to pick up or deliver supplies, equipment, or to transport people

Examples of Trucks Designed for In Field Work

Feed Mixer Truck
Spreader Truck
Hay Squeeze
Farm to First Processor Trucks

- May still qualify if not farmer owned
  - Trucking company or farm service provider
- Used to haul unprocessed products between farm “first point of processing”
- Includes on road & off road agricultural yard trucks
- Does not include transport of processed loads

First Point of Processing

- First location where harvested crops are altered from their original state
  - Packinghouse, slaughterhouse, cotton gin, huller, lumber mill, grain mill, food processor, biomass facility, cooler
- Excluded:
  - Distribution centers, wholesale and retail locations where first processing does not occur, livestock auction houses

Important Dates for Agricultural Fleets

- January 1, 2011 – Record odometer reading for all qualifying agricultural vehicles
- April 29, 2011 – Last chance to report to qualify for the agricultural provision
  - Permanently affix or paint “AG” on the left and right door (3” white block letters on 5”x8” black background)
- January 31, 2012 – Report January 1 mileage each year thereafter

Log Truck Option

- Report by January 2012
- Phase-in 2010 engines
- No PM retrofits
- Total number eligible may not increase
  - Jan 1, 2009 baseline
- Statewide with no mileage limits
- Must have “AG” label on both doors

NOx Exempt Area Operation

- Vehicle operated exclusively in NOx exempt areas
- Delay until 2014
- All PM filters by 2016
- No replacements needed
- Label on both doors or electronic tracking
- Report by January 31, 2012

Low-Mileage Construction Trucks

- Report by January 31, 2012
- Dump trucks and other construction trucks
- Operate less than 15,000 miles per year
- Phase in PM filters 2014 to 2016
- Label “CT” on both doors
- 15-day changes
Reporting Requirement

- No reporting for fleets using model year compliance schedule
- April 29, 2011
  - Agricultural vehicle provisions
  - Sweepers with secondary tier 0 engines
- January 31, 2012
  - All flexibility options
- On-line reporting & credits
  - Truck Regulations Upload and Reporting System (TRUCRS)

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.”

How to Report

www.arb.ca.gov/dieseltruck
(866) 634-3735 or 8666diesel@arb.ca.gov
Ways to Report

- TRUCRS - Online reporting system
  - Type information online
  - Large fleets may upload spreadsheet (contact us)
- Information saved for annual update
- No cost to report
  - www.arb.ca.gov/dieseltruck
- Paper forms

Key Information for Reporting

- Owner contact information
  - Company and corporate name, motor carrier identification number, address, contact information
- Vehicle information
  - Vehicle type, VIN, manufacturer, model, GVWR, model year, license plate number, registration information
- Engine information
  - Engine manufacturer, model, family, serial number (found on engine), model year, on-road or off-road, engine use, engine emission certification
- Verified diesel emission control technologies
  - Type, manufacture, family name, serial number, date installed

Have you reported before?

- Yes, I have an account & password
  - Please go directly to TRUCRS and report
- Yes, but I have not heard back
  - Letters mailed in February & March
  - Wait for account information
- No
  - Please go directly to TRUCRS and report

How do I Report?

- 1-866-6DIESEL (866-634-3735)
- Visit Truck and Bus Website:
  www.arb.ca.gov/dieseltruck
- Click on “Reporting Forms” button
TRUCRS – Request an Account

- Please use your account/password information in your letter
- Do not establish a new account unless this is your first time reporting
- Use Internet Explorer
TRUCRS – Additional Information

- Once all vehicles are entered or updated the fleet is considered reported
- Fleet data saved for next year
- Integration with fleet calculator in future
- General reporting will be available later this year

TRUCRS User Guides*

*Will be updated when new system comes online

Hard Copy Forms

Truck Stop - Online Resource

www.arb.ca.gov/truckstop 866-6DIESEL or 866-634-3735