Agenda

Class Overview

Background on CA Truck Regulations

Inspections & Enforcement

Truck and Bus

Tractor-Trailer Greenhouse Gas
Why are Regulations Needed?

- Reduce exposure to diesel PM and NOx (Ozone)
- Reduce environmental and climate effects
- Meet state and federal air quality standards
Cities in the U.S. with the Most Polluted Air

**Particulate Matter (PM)**

1: Fresno-Madera, CA  
2: Bakersfield, CA  
3: Visalia-Porterville-Hanford, CA  
4: Modesto-Merced, CA  
5: Los Angeles-Long Beach, CA  
6: El Centro, CA  
7: San Jose-San Francisco-Oakland, CA  
8: Cincinnati-Wilmington-Maysville, OH-KY-IN  
9: Pittsburgh-New Castle-Weirton, PA-OH-WV  
10: Cleveland-Akron-Canton, OH

**OZONE (Smog)**

1: Los Angeles-Long Beach, CA  
2: Visalia-Porterville-Hanford, CA  
3: Bakersfield, CA  
4: Fresno-Madera, CA  
5: Sacramento-Roseville, CA  
6: Houston-The Woodlands, TX  
7: Dallas-Fort Worth, TX-OK  
8: *Modesto-Merced, CA*  
9: Las Vegas-Henderson, NV-AZ  
10: Phoenix-Mesa-Scottsdale, AZ

Contacts and Resources

CARB Diesel Hotline
866-6DIESEL (866-634-3735)
8666diesel@arb.ca.gov

Truck Stop Website
www.arb.ca.gov/truckstop

Smoking Vehicle/Complaint Hotline
800-END-SMOG (800-363-7664)
TRUCKSTOP Website: www.arb.ca.gov/truckstop
Heavy-Duty Vehicle Inspections
The gross vehicle weight rating (GVWR) is assigned by the vehicle manufacturer and represents the maximum weight of the vehicle including engine, body, fuel, accessories, passengers operating when fully loaded.

The GVWR is **NOT** the same as the unladen weight, gross combined weight rating, or registered weight rating.
**Engine Model Year**

- Engines manufactured separately from vehicle chassis
- Represents emission standards for year of manufacture
- Most engines certified to earlier MY than truck body

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-9</td>
<td></td>
</tr>
</tbody>
</table>
What Vehicles Are Inspected?

Diesel or gasoline fueled vehicles 6,000 GVWR or greater, including:

• Trucks
• Transit Buses
• School Buses
• Government Vehicles
• Military Vehicles (excluding tactical vehicles)
What Do ARB Inspectors Look For?

- Excessive Smoke
- Emission Control Label
- Tampering
- Use of Illegal Diesel Fuel
- Compliance with Fleet Rules
In-Use Fleet Regulations

- Truck and Bus
- Tractor-Trailer GHG
- TRU
- Drayage
Commercial Vehicle Idling

• **5-minute idling limit** for diesel fueled commercial vehicles greater than 10,000 lbs. GVWR

• Exceptions
  – Certified clean idle vehicles with clean idle label
  – Testing, servicing, repair
  – Queuing
  – When needed to operate equipment (PTO)
Truck and Bus Regulation
What Vehicles Are Subject to T&B Reg?

- Privately and federally owned vehicles;
  - Diesel or alternative diesel fuel
  - GVWR greater than 14,000 lbs.
  - Operate in California

- Public and private school buses

- Privately owned two-engine street sweepers (only two engine vehicle subject to this regulation)
Who is Responsible for Compliance?

• Any person, business or agency that;
  – Owns
  – Leases or rents
  – Sells a vehicle

• CA based brokers and dispatchers
  – Must verify hired fleets comply

  – [Website Link]
Sales Disclosure Requirements

Must provide disclosure in writing to the buyer on the bill of sale, sales contract addendum, or invoice

“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.”
Exempted Vehicles

- Emergency vehicles
- Military tactical vehicles
- Personal use motor homes
- Personal use pickup trucks ≤ 19,500 lbs. GVWR
- Historic vehicles
- Vehicles subject to other in-use regulations
  - Two engine vehicles (subject to off-road regulation)
Main Strategies of the Truck and Bus Regulation

Retrofit
Replace
Repower
Retire

2010 engine technology by 2023 for most trucks
Requirements Based on Two Weight Categories & Engine Model Year

**Lighter**
14,001 – 26,000 lbs. GVWR

- 2010 MY engines - only requirement

**Heavier**
26,001 lbs. GVWR & greater

- Most heavier trucks must have Particulate Matter (PM) exhaust filters first, then 2010 MY engines
# Basic Compliance Schedule

## Engine Model Year Schedule for Lighter Vehicles

14,001 – 26,000 lbs GVWR

<table>
<thead>
<tr>
<th>Schedule for Lighter Trucks and Buses</th>
<th>No Reporting Required</th>
<th>Some Flexibility Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine Model Year</strong></td>
<td><strong>2010 MY Engine</strong></td>
<td></td>
</tr>
<tr>
<td>1995 and older</td>
<td>January 1, 2015</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>January 1, 2016</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>January 1, 2017</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>January 1, 2018</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>January 1, 2019</td>
<td></td>
</tr>
<tr>
<td>2003 and older</td>
<td>January 1, 2020</td>
<td></td>
</tr>
<tr>
<td>2004-2006</td>
<td>January 1, 2021</td>
<td></td>
</tr>
<tr>
<td>2007-2009</td>
<td>January 1, 2023</td>
<td></td>
</tr>
</tbody>
</table>
## Basic Compliance Schedule

### Engine Model Year Schedule for Heavier Vehicles

More than 26,000 lbs GVWR

<table>
<thead>
<tr>
<th>Engine Year</th>
<th>PM Filter</th>
<th>2010 MY Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-1994</td>
<td>Not required</td>
<td>January 1, 2015</td>
</tr>
<tr>
<td>2000-2004</td>
<td>January 1, 2013</td>
<td>January 1, 2021</td>
</tr>
<tr>
<td>2005 or newer</td>
<td>January 1, 2014</td>
<td>January 1, 2022</td>
</tr>
<tr>
<td>2007-2009</td>
<td>Already equipped</td>
<td>January 1, 2023</td>
</tr>
</tbody>
</table>

No Reporting Required
What do you mean by the terms “PM filter” and “2010 model year (MY) engine”?

**PM Filter**
- Highest level retrofit ($\geq 85\%$ PM reduction)
- Originally equipped on most 2007 MY and newer engines

**2010 model year (MY) Engine**
- Engine certified to 2010 MY or newer emission standards
Three-Day Pass Exemption

• Out of state fleets can apply for a three day pass once annually to bring a non complaint vehicle into the state

• Must complete Three Day Pass Exemption Form and submit to ARB three days prior to entering CA
  – Mail to address provided on form
  – Form available at [www.arb.ca.gov/truckstop](http://www.arb.ca.gov/truckstop)

• If ARB fails to respond the vehicle may operate in CA for the specified three day period
  – Must present copy of form to ARB upon request
Low-Use Vehicle Exemption

• Qualifying low use vehicles include those that operate:
  
  Less than 1,000 miles per year* in California

  OR

  Less than 5,000 total miles per year* until 2020 regardless of where operating
  (1,000 miles per year thereafter)

• No limit on low use vehicles in a fleet
• Must report by Jan. 31st and report annual miles

*Excludes emergency or emergency support operation
Alternative Compliance Options

• Options only available to fleets that opted-in by specified deadline(s) and met minimal compliance requirements:
  – Agricultural Vehicle Extension
  – Log Truck phase-in
  – Phase in option & credits
  – Extended use of PM filter
  – Small fleet phase-in
  – Economic hardship
Reporting Requirements

• Reporting required to use regulatory flexibilities

• Must be completed by January 31st annually
  – Changes must be reported within 30 days

• Truck Regulation Upload, Compliance, and Reporting System (TRUCRS)
  – Basic vehicle information, engine information, company information, contact, flexibility based information

• Paper reporting forms available
Certificate of Reported Compliance

• Used to demonstrate compliance status

• Will not be asked for by ARB Enforcement

• Used by brokers/shippers to verify compliance
How to Print a Certificate of Compliance

• All vehicles must be reported completely
  – Don’t need to report light trucks in most cases
  – Odometer readings must be updated January 1, each year
How to Print a Certificate of Compliance

• All vehicles must be reported completely
  – Don’t need to report light trucks in most cases
  – Odometer readings must be updated January 1, each year

• Fleet must be in compliance
Truck and Bus Regulation

Reporting Lookup

Here you can look up companies or fleets that have reported to comply with the Truck and Bus regulation. You can search by entering any part of the company name, TRUCRS ID, or Motor Carrier Number. Only fleets that have printed their certificates for 2014 will be listed. This fleet information is updated nightly.

Anyone who operates or directs the operation of any vehicle subject to the Truck and Bus regulation needs to verify that each hired company is either in compliance with the regulation or has reported compliance to the Air Resources Board. See How to Verify if Hired Fleets Comply.

Search Results

| TRUCRS ID | Name       | Carrier Number | Complies | Date         |

Truck and Bus Regulation Home
Tractor-Trailer Greenhouse Gas (GHG) Regulation
Applicability

• Tractors Pulling ≥ 53-Foot Trailers

• ≥ 53 Foot Trailers (Dry-Van & Reefers)

• Responsible for Compliance:
  • Owner
  • Driver
  • Motor Carrier
  • California-Based Broker, and
  • California-Based Shipper

• All Affected Vehicles Operating in CA Regardless of Where Registered
Exempt Tractors and Trailers

- Container-Chassis Trailers
- Drop-Frame Van Trailers
- Curtain-Side Van Trailers
- Emergency Vehicles
- Solid Waste Vehicles
- Military Vehicles
- Empty Trailers
General Requirements

• **Tractors** - New and Existing:
  2011 & Newer → Aerodynamic Equipment & LRRs
  2010 & Older → LRRs Only

• **Trailers** - New and Existing:
  → Aerodynamic Equipment & LRRs
Low Rolling Resistance Tires

- Characteristics of low rolling resistance tires
  - Reduced sidewall flexing
  - Tire rubber material and tread thickness
  - Tread design
- A 3% benefit in fuel economy for the tractor-trailer
  - Additional benefits for single wide base tires
Tractor Technologies

- Integrated roof fairing
- Aerodynamic mirrors
- Aero profile tractor
- Aerodynamic bumper
- Cab side gap fairings
- Fuel-tank skirts

www.epa.gov/smartway/forpartners/technology.htm
## Tractor Requirements

<table>
<thead>
<tr>
<th>Feature</th>
<th>2011 and Newer</th>
<th>2010 or Older</th>
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</thead>
<tbody>
<tr>
<td>Day Cab</td>
<td>Jan. 1, 2010</td>
<td>Jan. 1, 2010</td>
</tr>
<tr>
<td>Aerodynamics</td>
<td>Jan. 1, 2010</td>
<td>N/A</td>
</tr>
<tr>
<td>Low Rolling Resistance Tires</td>
<td>Jan. 1, 2010</td>
<td>Jan. 1, 2010</td>
</tr>
</tbody>
</table>

**NOTE:** 2014 Model Year Tractors are not covered by TTGHG and must meet Federal mileage requirements.
Trailer Technologies
<table>
<thead>
<tr>
<th>TRAILER Compliance Dates</th>
<th>2011 and Newer</th>
<th>2010 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY-VAN-5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REFR.-VAN 4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Requirements for Brokers, Shippers, Motor Carriers

- California-Based Brokers, Shippers, and Motor Carriers may only dispatch GHG compliant trailers and tractors
- California Licensed Dealers must retain sales and leasing records for 3 years
- Lessor to retain records for 3 years for lease agreements containing disclosure language
Heavy-Duty (Tractor-Traveler) Greenhouse Gas Regulation

This page last reviewed December 2, 2014

Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Regulation

Background:

The California Air Resources Board (ARB) in December 2008 adopted a new regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. Fuel efficiency is improved through improvements in tractor and trailer aerodynamics and the use of low rolling resistance tires.

The regulation is expected to reduce greenhouse gas emissions by approximately 0.7 million metric tons of carbon dioxide-equivalents by 2020, statewide. Over the 11 years between 2010, when the rule went into effect, and the end of 2020, it is estimated that truckers and trucking companies will save about $5.1 billion when diesel fuel consumption is reduced by as much as 500 million gallons in California and 3.3 billion gallons across the nation.

The tractors and trailers subject to this regulation must use U.S. Environmental Protection Agency SmartWay® certified tractors and trailers, or retrofit their existing fleet with SmartWay® verified technologies. For further information, please call 866-6DIESEL (866-634-3735) or email at 8666diesel@arb.ca.gov. Financial assistance is available through an ARB loan program and the Federal SmartWay Finance Program. More information can also be found at the federally-funded Diesel Emissions Reduction National Program (DERA).
Registration and Reporting

- Registration required for Short-Haul & Local-Haul Options and Other Exemptions
- Report in Truck Regulation Upload, Compliance, and Reporting System (TRUCRS) GHG
## Please fill out Evaluation Form

![Evaluation Form Image]

Date: __________  
Training Location: __________  
Trainer: __________

In order to determine if this training met your needs, please take a few moments to answer the following questions and return to the instructor before you leave. Thank you!

<table>
<thead>
<tr>
<th>Job Function</th>
<th>Email</th>
<th>UCD Website</th>
<th>ABF Website</th>
<th>Postcard</th>
<th>Employer</th>
<th>Word of Mouth</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck/Fleet Owner</td>
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<td></td>
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<tr>
<td>Truck Operator</td>
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<tr>
<td>Fleet Manager</td>
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<tr>
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<tr>
<td>Motor Carrier</td>
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<tr>
<td>Compliance Company</td>
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<tr>
<td>Other (specify)</td>
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</tr>
</tbody>
</table>

How did you find out about this class?  
(circle one)

- Email
- UCD Website
- ABF Website
- Postcard
- Employer
- Word of Mouth
- Other (specify)

### OVERALL:

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

This session was helpful to learn about California diesel regulations.

This session will help me comply with California’s diesel regulations.

### INSTRUCTOR FEEDBACK:

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Instructor was prepared and organized.

Instructor displayed a clear understanding of the subject matter.

Instructor presented content clearly.

Instructor dealt with questions adequately.

Any additional comments about the course and/or instructor?

_________________________________________________________________________________________________________________________________________________________

If you would be interested in hosting a diesel air quality training class, please provide your name, phone, and email below:

_________________________________________________________________________________________________________________________________________________________

Thank you for your feedback!!!
Contacts and Resources

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