Cummins West

CARB COMPLIANCE. DIESEL RETROFITS

FACTS & SOLUTIONS - CARB TRUCK FLEET RULE

CARB TRUCK FLEET RULE - SUMMARY

What Vehicles are Affected by the Regulation?

The regulation applies to nearly all diesel fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned and for privately and publicly owned school buses. Other public fleets, solid waste collection trucks and transit buses are already subject to other regulations and are not part of the truck and bus regulation. Trucks that transport marine containers must comply with the drayage truck regulation. Vehicles operated less than 1000 miles per year can be exempt from the general requirements, but must be reported in each compliance year.

Compliant Until 2020

All fleets could make any vehicle equipped with a PM filter prior to 2014 compliant until 2020, or could make all heavier vehicles (>26,000 GVWR) in the fleet exempt from meeting the replacement requirements until 2023 if all heavier trucks in the fleet are equipped with PM filters prior to 2014.

Getting Started

Steps you should take now to understand your fleet composition and the most cost effective approach for meeting CARB compliance:

- Document your "baseline" fleet profile as of 10/1/2006
- Document current fleet profile including truck make/model, GVWR, engine model year, engine family, etc.
- Data log your fleet under "normal" operating conditions to establish a representative exhaust gas temperature profile. This helps determine what DPFs can be applied based on your duty cycle and operation.

Provisions for Specialty Trucks & Buses

There are provisions in the regulation that allow for additional flexibility for the following types of vehicles. Please contact a Cummins West representative or consult the regulation for more information:

- Construction trucks
- School buses
- Logging trucks
- Trucks used exclusively in agricultural operations
- Trucks used exclusively in NOx attainment areas

Large Fleets: 4+ Vehicles over 26,000 GVWR

A large fleet can choose to comply with the rule by either following the BACT schedule in Table 1 or the Phase-in option in Table 2. Reporting is required if the Phase-in Option is chosen.

Table 1 - LARGE FLEET PM BACT COMPLIANCE SCHEDULE

Engine Model Year	Install DPF by	Replace with 2010 Engine
Pre 1994	N/A	12/31/2014
1994-1995	N/A	12/31/2015
1996-1999	12/31/2011	12/31/2019
2000-2004	12/31/2012	12/31/2020
2005-2006	12/31/2013	12/31/2021
2007 or Newer	N/A	12/31/2022

Table 2 - LARGE FLEET DPF PHASE-IN COMPLIANCE SCHEDULE

Compliance Date	Required % of fleet to meet PM BACT (have OEM or retrofit DPFs)
2011	30%
2012	60%
2013	90%
2014	90%
2015	All vehicles comply with BACT schedule

Additional Phase-In Credits & Exemptions

Fleets that utilize the Phase-in option for heavier trucks, and report by January 31, 2012, could take advantage of credits to delay requirements for other heavier trucks based on the following actions:

- Installing a verified retrofit DPF by 7/1/2011
- Fleets that have downsized since 2006
- Fleets in which the average vehicle age has been reduced since 2006
- Adding fuel efficient hybrids or alt fueled trucks by 1/1/2017
- Reporting by 1/31/2012 is required if using the Phase-in Option, Credits or Exemptions

Please contact a Cummins West representative or consult the regulation for more information on credits and exemptions.

Small Fleets: 1-3 Vehicles over 26,000 GVWR

Small fleets are subject to a two-step compliance path. The first step is to implement DPF's (OEM or retrofit) in accordance with the compliance schedule in Table 3. Once compliant with the DPF portion of the regulation, small fleets must replace trucks with 2010 MY engines in accordance with the schedule in Table 4. No reporting is required for small fleets.

Table 3 - SMALL FLEET DPF REQUIREMENT

Key Compliance Dates	DPF Requirement
12/31/2013	DPF on 1 Truck
12/31/2014	DPF on 2 Trucks
12/31/2015	DPF on 3 Trucks

Table 4 - SMALL FLEET 2010 MY ENGINE REQUIREMENTS

Engine Model Year	Replace with 2010 Engine
Pre 2000	12/31/2019
2000-2004	12/31/2020
2005-2006	12/31/2021
2007 or Newer	12/31/2022

Fleets would also have the option to install a PM filter retrofit on a lighter truck by 2014 to make the truck exempt from replacement until January 1, 2020, and any lighter truck equipped with a PM filter retrofit prior to July 2011 would receive credit toward the compliance requirements for heavier trucks and buses in the same fleet.

Lighter Trucks: Less than 26,000 lbs GVWR

Lighter trucks and buses with a GVWR of 14,001 to 26,000 pounds would not have compliance requirements until 2015. The Compliance Schedule for Lighter Trucks (Table 5) lists the compliance dates that would apply by engine model year for lighter trucks. Starting January 1, 2015, lighter trucks with engines that are 20 years or older would need to be replaced with newer trucks.

Table 5 - COMPLIANCE SCHEDULE FOR LIGHTER TRUCKS

Compliance Date	Engine Model Year	Requirement
12/31/2014	1995 & Older	Replace with 2010 MY Engine
12/31/2015	1996	
12/31/2016	1997	
12/31/2017	1998	
12/31/2018	1999	
12/31/2019	2003 & Older	
12/31/2020	2004-2006	
12/31/2022	2007 or Newer	

Starting January 1, 2020, all remaining trucks and buses would need to be replaced so that they would all have 2010 model year engines or equivalent emissions by 2023. No reporting would be required.

Fleets would also have the option to install a PM filter retrofit on a lighter truck by 2014 to make the truck exempt from replacement until January 1, 2020, and any lighter truck equipped with a PM filter retrofit prior to July 2011 would receive credit toward the compliance requirements for heavier trucks and buses in the same fleet.

Note: *The information presented in this document is meant to serve only as a general guide. All fleets subject to this regulation should consult the official regulatory documents on the CARB website: www.arb.ca.gov*

A Decade of Diesel Retrofit Experience.

Cummins West

A DECADE OF RETROFITS

Experience that Matters

Over the past 10 years, Cummins West has installed over 5,500 diesel particulate filters (DPF). Our experienced staff can help you develop a comprehensive and cost effective plan for maximizing the life cycle of your equipment while meeting CARB regulations. Cummins West offers many advantages compared to other DPF installers:

- Unmatched experience with CARB regulations & DPFs
- DPFs for most engines and duty cycles
- Local branch facilities with certified technicians
- In-shop and mobile installation services
- Proven experts with diesel engines & DPFs
- Warranty authorized for all DPFs we sell
- Assistance with grant writing and incentive programs

Assessment

With extensive engine, retrofit and emissions experience, our staff will work with you to assess your fleet and data log engines to help determine the most cost-effective approach to CARB compliance.

Rule Interpretation

Our dedicated staff of compliance experts can help you translate the complex language of emissions regulations and assist with developing a sustainable compliance strategy for your operation.

Funding, Incentive & Exemption Programs

Depending on your fleet profile and operation, programs may be available that provide incentives or exemptions. We can help you identify and apply for these programs to reduce the financial impact of emissions compliance.

Installation & Workmanship

Retrofit systems are only effective when properly applied, installed and maintained. Our application engineers, technicians and fabricators are known for quality workmanship to ensure top performance and reliable operation of your DPF systems.

DPF Retrofit Technology

We only offer the leading DPF technology that's designed and produced in the United States:

- Cleaire Advanced Emission Controls
- Cummins Emissions Solutions

Responsive Service Network

With Cummins West you are backed by the most extensive service and parts network, including DPF filter de-ashing services. We are full-line factory authorized to perform warranty repairs on all the DPFs we sell. Certified technicians are available 24/7 for prompt, reliable service.

CUMMINS WEST, INC.

SERVING NORTHERN AND CENTRAL CALIFORNIA SINCE 1934

Arcata
5150 Boyd Road
Arcata, CA 95521
Tel: 707-822-7390
Fax: 707-822-7585

Bakersfield
4601 East Brundage Ln.
Bakersfield, CA 93307
Tel: 661-325-9404
Fax: 661-861-8719

Fresno
5333 N. Cornelia Ave.
Fresno, CA 93722
Tel: 559-274-4400
Fax: 559-274-4481

Redding
5125 Caterpillar Road
Redding, CA 96003
Tel: 530-244-6898
Fax: 530-244-6899

Sacramento
875 Riverside Parkway
West Sacramento, CA 95605
Tel: 916-371-0630
Fax: 916-376-1591

San Leandro
14775 Wicks Blvd.
San Leandro, CA 94577
Tel: 510-351-6101
Fax: 510-347-6191

Cummins West

Toll Free: 800-595-5050
Routes to the nearest Customer Service Center

www.cumminswestinc.com

© 2011 Cummins West, Inc. Ver. 7/19/11