



California Bus Association

Promoting Professionalism, Safety & Integrity in the Motorcoach Industry

December 18, 2008

CARB Regulation 2025- Final Rule for On Road Diesel Vehicles (including Motorcoaches)

Due to conflicting data on emissions from heavy duty motor coaches developed by CARB when using different sources for a realistic statewide bus population and growth rates (or lack of growth), CARB and CBA negotiators reached a compromise agreement passed by the CARB Board on Dec. 12th. The final regulation can be found on the web at: http://www.arb.ca.gov/msprog/onrdiesel/documents/08-1211Attachment_C.pdf and is 54 pages long.

What did we agree to and what does this compromise mean to all CBA members?

We agreed to the following provisions:

A new category, "Motorcoach (MC)" was created in the rule with extended NOx target compliance dates. The definition of MC narrows this category of heavy duty on-road vehicle to a "for-hire" only vehicle having an under floor separate luggage compartment and is at least 35 ft in length designed for and has seating capacity for 40 or more passengers.

The most favorable way of meeting this new rule, even before the compromise, was to opt for the "**Fleet Averaging Option**" which requires use of CARB's most recent re-calibrated "fleet calculator". (This calculator will need to be adjusted again to reflect the delayed MC NOx targets.)

For fleet averaging purposes, MCs were given **three additional years**, from 1-1-2014 to **1-1-2017** to meet the NOx target rate (grams/mile) of **9.8 vs. 6.0 for most all other heavy duty trucks in 2017**. A new Table 3 adds a new column for "MC". The next target date is 2021 at 4.4 g/mile, **one year later than most trucks**.

The PM requirements were not changed and will go into effect as of 1/1/2011. **See Table #4 below. This means your fleet will have to be PM compliant by January 1, 2011. Early planning and adjustments will be required by late 2009 and 2010.**

All other time extensions whether in the regulation or granted by the **Executive Officer (EO)**, based on written requests, remain the same.

Other provisions of interest are:

NOx mileage exempt vehicles are vehicles that operate 7,499, or less, miles per year. They also include any vehicles operated exclusively within a NOx attainment within California (see NOx Attainment Counties below). This may be helpful for seasonal charter contracts using older buses such as older 92 series coaches or 2 door transit buses.

By January 1, 2018 a **2 cycle** (8v-6V-92s) engine must be replaced if it can't be equipped with a verified **level 3** PM device (PM filter- which a 92 series engine will not accept). See A-12 (58) "PM BACT".

The 'Attainment' counties are:

Santa Cruz

Monterey

San Benito

Alpine

Mendocino

Humboldt (except for the city of Eureka) north to the Oregon border EXCEPT Butte and Sutter counties.

For the highest level PM retrofit devices,

- A finding that a VDECS is not required can be granted annually if it ***"Impairs Safe Operation of Vehicle"*** i. e. no safe or appropriate method of mounting the VDECS.
- A same finding, if no verified VDECS is commercially available
- A same finding if no used buses available that meet 2007 or better emissions standards.
Note: ***When finding used replacement buses to meet the stricter NOx levels, you may have to purchase buses that are NOT your primary choice (i.e. prefer one make, but if used buses are available for sale of another manufacturer, you will be required to purchase one of the other makes).***

For NOx performance requirements, in new Table 3 we have up to **1-1-2021** for the EO to grant annual extensions based on the ***"unique vehicle"*** provision (2007 engine or newer bus not in market for sale) (See pages A-14 (70) & A-41 (12) (D).

So, if there are no NOx devices available and you already attached a PM device (unless the EO gave you an extension), you can apply to the EO for a NOx extension annually if there are no 2007 or newer buses (used) on the market for sale.

What are the practical implications from our compromise?

- You will be spared paperwork for NOx performance requirements until 1-1-2017 vs 1-1-2014. However, there will be PM recordkeeping for PM targets by 1-1-2011.
- Once the changes are made for motorcoaches according to the new rule, you will need to use an updated Fleet Calculator that can be found at <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

When a new fleet calculator is completed by CARB (the last version, #4, revised on 12/10/08, has not been revised to cover the motorcoach changes), the new calculator can be downloaded.

- to determine how to calculate PM only or PM/ NOx DPF's devices that must be installed to meet each years PM target levels, use Table #4 levels below, beginning as of 1/1/2011, and continuing through 1/1/2023.
- After 2021, you will need to meet lower targets of 4.4 gm/mile NOx and only 2010 or newer vehicles will meet this criteria (please use the updated MC fleet calculator when available to calculate your fleets needs).

The NOx and PM target levels are found in the tables below and are the levels that must be met under the various time deadlines (unless extended as described above). Please note: You must check the level of NOx or PM when making equipment changes by using CARB's Fleet Calculator if you choose the **Fleet Averaging** option.

Table 3: Fleet NOx Targets to be Used to Calculate NOx Target Rates (g/mile)

Compliance Deadline, as of January1:

	MHD	HHD	MC
2013	8.5	14.4	N/A
2014	5.8	9.8	N/A
2015	5.8	9.8	N/A
2016	4.6	7.8	N/A
2017	4.0	6.0	9.8
2018	4.0	6.0	9.8
2019	4.0	6.0	9.8
2020	3.2	4.4	9.8
2021	3.2	4.4	4.4
2022	1.6	3.0	3.0
2023	0.8	1.6	1.6

Table #4 Used to Calculate PM Target Rates (g/mile) Fleet PM Targets for each compliance

Compliance Deadline as of January 1

	MHD	HHD
2011	0.38	0.710
2012	0.29	0.530
2013	0.17	0.320
2014	0.06	0.110
2015	0.06	0.110
2016	0.06	0.110
2017	0.06	0.110
2018	0.06	0.110
2019	0.06	0.110
2020	0.06	0.110
2021	0.06	0.110
2022	0.06	0.110
2023	0.06	0.110

We must continue to evaluate the CBA's proposed emissions inventory for any possible future attempts by CARB to modify this rule of the motorcoach section.