

Medium & Heavy Duty Vehicle Industry Panel on Emission Changes

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Vehicle Engineering Branch Chief & Moderator

Panelists

Rick Motkowicz, GSA Fleet
Jeffery Bodkin, Daimler Trucks North America

Our panelists are:

Jeffrey Bodkin - National Account Executive - Vocational
Daimler Trucks - Freightliner and Western Star

Rick Motkowicz - Rick Motkowicz is a vehicle engineer for
GSA Fleet, and he oversees vehicles in the medium and
heavy programs for GSA Fleet. He is responsible for the
Federal vehicle standards and minimum requirements for
these programs.

Our Panel will discuss the following:

1

Deciphering the CARB regulations impacting medium/heavy duty truck sales and registrations in California (2024, Washington and other thereafter)

3

How will the industry "fill the gap" with the elimination of diesel and gasoline engines in these markets?

2

Near term vision of alternative fueled Class 6 to Class 8 trucks -

4

How can GSA better support your mission as a vendor? (CARB or other options)



DAIMLER TRUCK

Deciphering CARB Regulations - Fed Fleet 2024

Jeff Bodkin

National Account Manager

Daimler Trucks

January 25th, 2024

Important Notes:

- Regulations are shifting and this information is subject to change
- Not legal advice – please refer to your local regulations and consult your own counsel



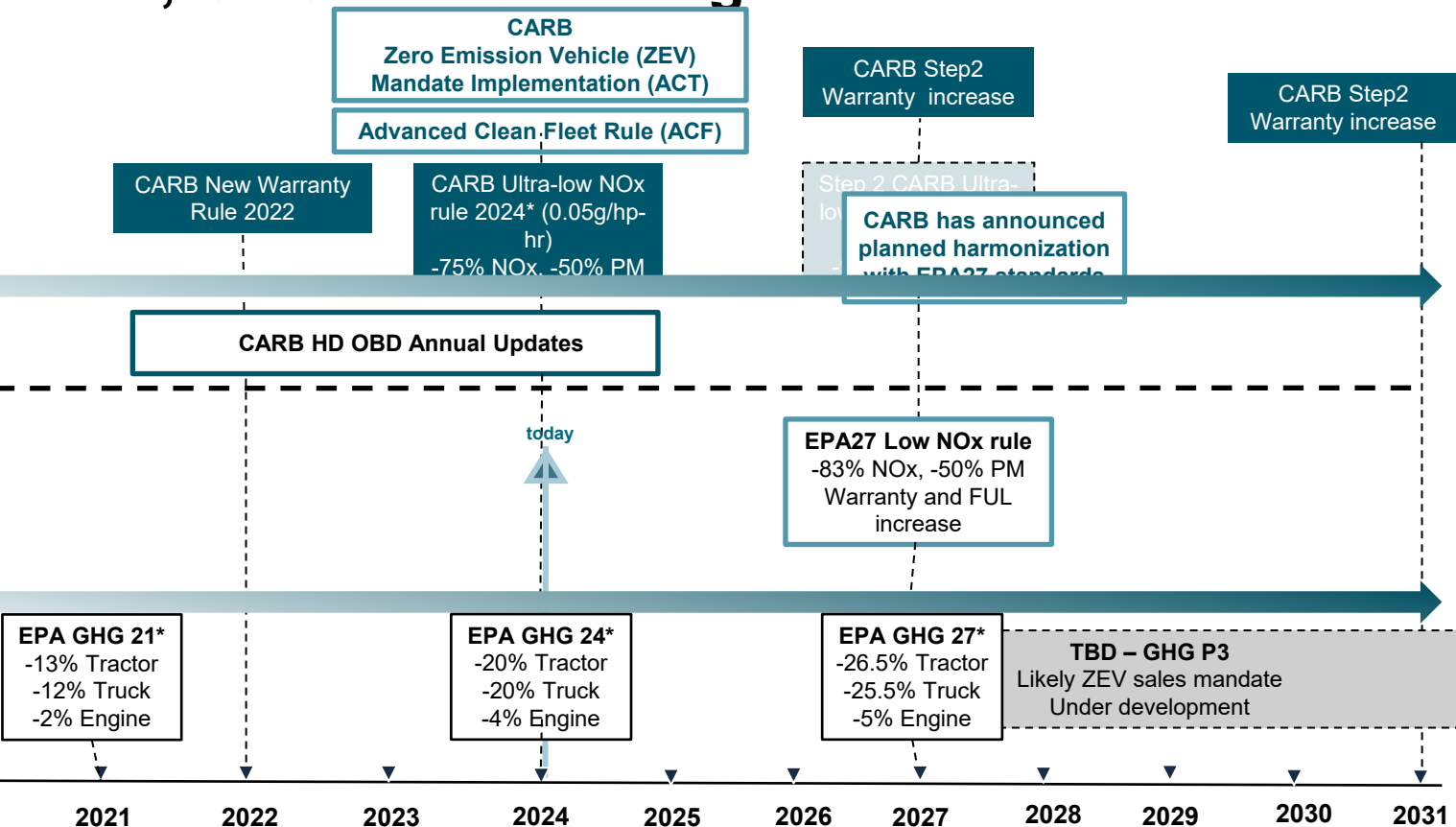
US Emissions, GHG and OBD Regulations

California Air Resources Board (CARB)



CARB HD OBD 2019

Environment Protection Agency (EPA)



* Compared to MY2017 baseline

CARB Omnibus Overview

2024

- 2024 – 2026 CARB Low NOx rule still stands
- Alternate compliance paths available using credits provides a wide product portfolio (with volume limitations) in California

2027

- **CARB has agreed to harmonize with the core elements of EPA’s 2027 low NOx rule**
- **Formal rulemaking efforts ongoing**

	Current National Standards	California-Specific Standards		
		MY24	MY27	MY31
Nox: FTP, RMC	0.2 g/hp-hr	0.05* g/hp-hr		
PM: FTP, RMC	0.01 g/hp-hr	0.005 g/hp-hr		
LLC Nox	N/A	0.05 g/hp-hr		
Idling	30 g/h	10 g/h		
HDIUT	NTE Procedure CF: 1.5	3-bin MAW CF: 2.0		
Useful Life	HHD: 435k mi / 10 years	HHD: 435k mi / 10 years		
Warranty	HHD: 350k mi/ 5 years	HHD: 350k mi/ 5 years		

EPA Cycle Emissions Standards Reductions for 2027

CARB has announced planned harmonization with EPA27

- Required for new commercial vehicles registered for use in California and CARB Opt in states
- CARB’24 will go into effect as planned
- In agreement with Engine Manufacturers’ Association, **CARB has announced intentions to harmonize with the core elements of EPA’s MY’27 Standards.**

Does my vehicle need a California Clean Idle Label?



Diesel Truck and Bus Idling Enforcement

- California has rules that limit diesel truck and bus idling to 5 minutes.
- Trucks and buses with certified Clean Idle stickers can idle for more than 5 minutes in most areas.
- The Clean Idle Label is not necessarily required to be able to operate in California*, however idling laws will apply, and the driver, or fleet owner can be held responsible.
- Many states have similar rules – and some recognize the Clean Idle Sticker. It is important drivers and fleets familiarize themselves with idle laws in the area they are operating (see QR code on the left).

CARB Advanced Clean Truck (ACT) Rule & ACF Update

- Starting 2024, manufacturers required to sell a percentage of ZEVs based on annual sales volume of on-road vehicles produced and delivered for sale in CA.
- Vehicles and Powertrains must be CARB-certified.
- Finalized March 15, 2021

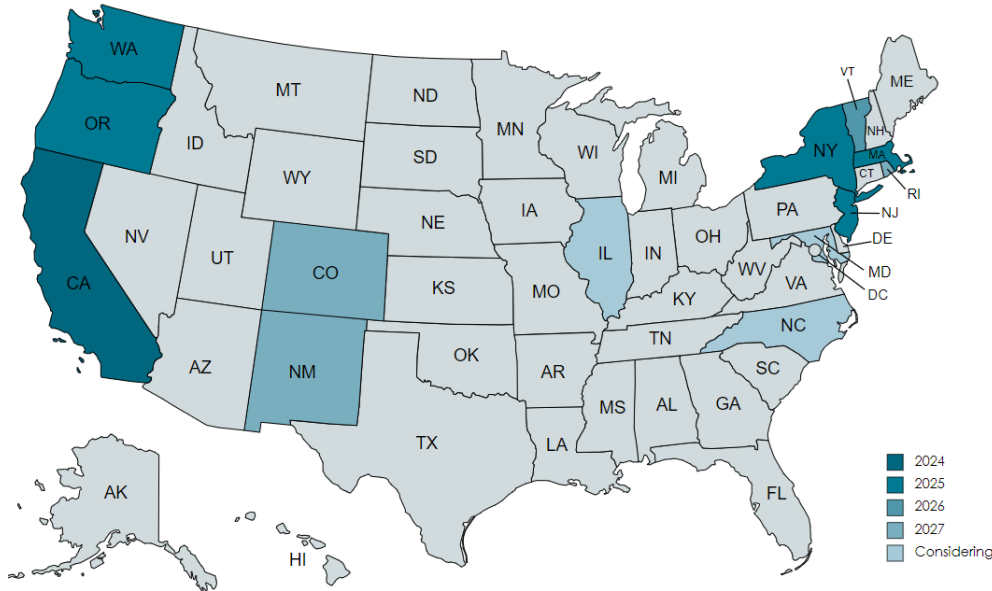
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- CARB Advanced Clean Fleet sunsets the ACT rule and replace with a **100% ZEV Sales Mandate in 2036**
-

Table A-1. ZEV Sales Percentage Schedule

Model Year	Class 2b-3 Group	Class 4-8 Group	Class 7-8 Tractors Group
2024	5%	9%	5%
2025	7%	11%	7%
2026	10%	13%	10%
2027	15%	20%	15%
2028	20%	30%	20%
2029	25%	40%	25%
2030	30%	50%	30%
2031	35%	55%	35%
2032	40%	60%	40%
2033	45%	65%	40%
2034	50%	70%	40%
2035	55%	75%	40%

Starting in 2036, all On-Road vehicles sold in California must be ZEVs

CARB ACT Rule CY 2024+



- Currently **CA, CO, MA, NJ, NM, NY, OR, RI, VT, and WA** have **fully adopted** CARB's ACT rule.
- **Recent Updates:** CT and ME decided against adopting the ACT regulation.
- **Additional states** are considering adopting the ACT rule for 2027+
- The following states have signed a **Multi-State MOU** for MD and HD ZEVs, but not taken further action: DC, HI, NV, PA, VA.
- Regulations expected to apply to vehicles **produced and delivered for sale** in these states.

Adopted '24	Adopted '25	Adopted '26	Adopted '27	Considering Adoption
CA	MA, NJ, NY, OR, WA	VT	CO, NM, RI	CT, IL, MA, ME, MD, NC

California's Advanced Clean Fleets Rule

- California's ACF Rule **regulates the fleets that operate in California** (not just sold/registered/domiciled).
- **Fleets need to plan for compliance.**
- Different rules for different fleet types:
 - High Priority and Federal Fleets.
 - Drayage Fleets.
 - State and Local Government Fleets.
- ACF rule targeted to take effect in 2024.
- **In late December 2023 CARB has announced some ACF reporting and enforcement delays. These will be discussed later in this presentation.**



DTNA cannot and does not provide legal advice. Information provided represents DTNA's best information regarding the changing regulatory landscape as of January 9, 2024; all facts and laws are subject to change. Contact your legal counsel for the current state of the law and for all legal advice.

CARB's ACF – High Priority and Federal Fleets

- **Scope and applicability:** Own, operate, or direct vehicles in CA, with >50M USD revenue nationally, or 50+ vehicles nationally.
- **“California Fleet” is any vehicle that enters California – even for a single day.**

Two Paths for Compliance:

Prime Path: Starting 2024, all vehicles added to the CA fleet must be ZEVs. ICE's must be retired at 18 years or 800,000 miles (min. 13 years)

Optional ZEV milestone phase-in path: Instead of above, fleets may register to opt-in to an optional path to maintain a target number of ZEVs, as a percent of their California fleet.

Milestones	Zero-Emission Fleet Percentage	10%	25%	50%	75%	100%
Group 1	Box trucks, vans, two-axle buses, yard trucks	2025	2028	2031	2033	2035
Group 2	Work trucks, day cab tractors, three-axle buses	2027	2030	2033	2036	2039
Group 3	Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042

Fleet's
Total ZEV
Target

$$= (\text{Group 1 Number of Vehicles}) \times (\text{Group 1 Percentage Requirement}) + (\text{Group 2 Number of Vehicles}) \times (\text{Group 2 Percentage Requirement}) + (\text{Group 3 Number of Vehicles}) \times (\text{Group 3 Percentage Requirement})$$

- **All new non-ZEV vehicles added to the CA fleet must be CARB certified**

Exemptions / Exclusions:

Exemptions are available for certain vehicle types, as well as delays in infrastructure or vehicle availability.

Exemptions require documentation and approval by CARB. Fleets must show proactive efforts **12 months ahead of a compliance deadline** to be eligible:

- Purchase orders for vehicle delivery delay.
- Executed contracts and permits for site construction and electrification.

Fleets that operate in California need to start putting plans in place to comply with this rule.

Recent ACF Communication by CARB – Enforcement Delay

On December 28th 2023 CARB issued a letter to CTA with the following information (see QR code for a link):

- CARB has **agreed not to enforce the reporting or registration requirements of the ACF as it applies to high priority fleets and drayage until a waiver determination is issued by EPA.**
- Fleets may voluntarily report and apply for flexibility provisions.
- **CARB encourages fleets to continue to comply** with the registration and reporting requirements while the waiver decision is pending.
- **CARB reserves the right to take enforcement action** to remove internal combustion trucks added after 1/1/24 that would not otherwise be in compliance with the ACF.

CARB planning to publish an Enforcement Advisory.



<https://ww2.arb.ca.gov/sites/default/files/2023-12/231227carbctaletter.pdf>

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CARB HD Inspection and Maintenance Rule – “Clean Truck Check”

Applies to all diesel and alternative-fuel HD vehicles operating in California

➤ **Register** trucks in HD I/M database starting in 2023

- **Deadline extended until end of Jan 2024**

➤ Obtain/maintain **vehicle compliance certificate**, including annual compliance fee.

➤ Perform periodic **vehicle compliance tests**:

- Bi-annual OBD data snapshot with certified HD I&M tools.

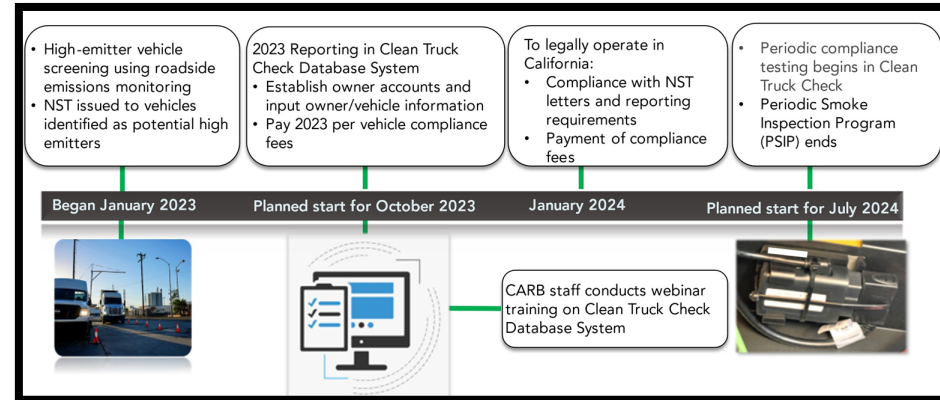
- OR -

- Install a certified continuously connected OBD telematics device

- A vehicle with an illuminated MIL does not meet the compliance requirements.

- Robust enforcement efforts, including plate readers and roadside emissions checks.

- **30 days to respond to notice to submit testing**



Failure to comply may result in fines, registration holds, and even vehicle impoundment.

Fleets that operate in California need to have plans in place to comply with this rule.

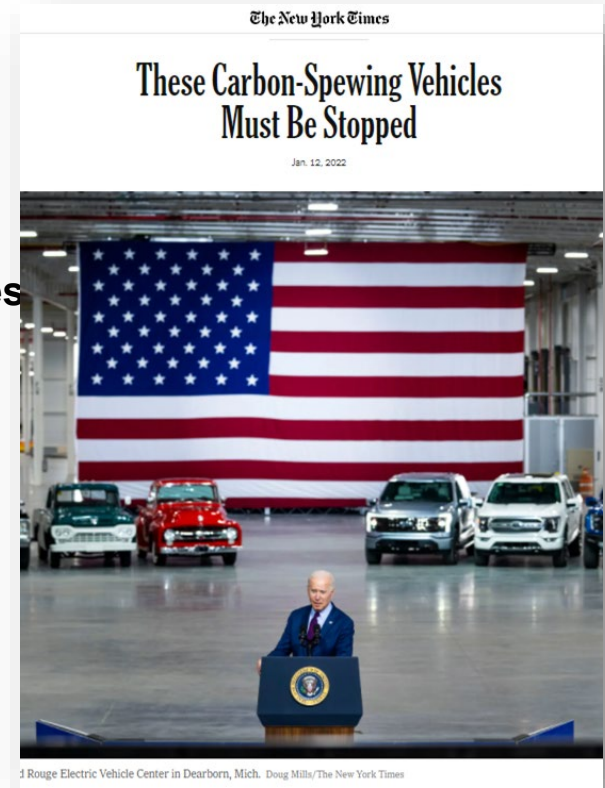
EPA GHG Phase 3 Rulemaking

- **Proposal released April 2023** – leverages existing GHG P2 framework, but requires significant ZEV penetration

Proposed ZEV Adoption Mandates for New Commercial Vehicles

	MY27	MY28	MY29	MY30	MY31	MY32
All Straight Trucks	20%	25%	30%	35%	40%	50%
Day Cab Tractors	10%	12%	15%	20%	30%	35%
Sleeper Cab Tractors	0%	0%	0%	10%	20%	25%

Main proposal shown above. EPA is considering alternate scenarios ranging in lower stringency (~-5% lower) to higher stringency up to 60%.



1 Rouge Electric Vehicle Center in Dearborn, Mich. Doug Mills/The New York Times

**Initial Draft
Rulemaking
April '23**

**Final Rule
Published
April '24**

**Expected
Implementation
2027+**

