

EPA and CARB Begin Reexamining Heavy-Duty Vehicle Regulations

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Energy and Environmental

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) recently announced efforts to reduce emissions from heavy-duty trucks and engines.

On November 13, 2018, the EPA launched its [Cleaner Trucks Initiative \(CTI\)](#) to decrease nitrogen oxide (NOx) emissions from on-highway heavy-duty trucks and engines. The CTI will culminate in a future rulemaking, which will update the existing NOx standard and reduce other regulatory burdens faced by heavy-duty truck and engine manufacturers. EPA intends to publish its proposed rule in early 2020 and intends for the rule to take effect by the 2024 model year. EPA has previously said that it views updates to the NOx standard as an opportunity to harmonize federal and California rules governing NOx emissions from commercial vehicles.

Two days later, [CARB adopted revisions](#) to California's Heavy-Duty On-board Diagnostic (HD OBD) regulation. OBD systems are software programs loaded into an engine's on-board computer that monitor the performance of emission-related components for malfunctions. The most noteworthy revision creates a new emissions tracking program—Real Emissions Assessment Logging (REAL)—that requires OBDs to collect and store NOx emissions data from medium- and heavy-duty trucks while those vehicles are in-use. The revisions also require OBDs to collect and store fuel consumption data that will be used to track CO₂ emissions from heavy-duty vehicles.

Upon [announcing its CTI](#), EPA said that, in addition to updating the NOx standard, it intends to “cut unnecessary red tape” and simplify the compliance requirements for heavy-duty trucks, including requirements for OBDs. In light of California's authority to impose more stringent automotive emissions standards than EPA, industry and interested stakeholders will undoubtedly focus on opportunities for alignment and possibly a “50-state” standard, as EPA moves forward with the CTI and reconsiders existing greenhouse gas (GHG) standards for heavy-duty trucks and trailers.

Background

The transportation sector is responsible for more than half of the NOx emissions in the United States, and EPA estimates that heavy-duty trucks will cause one-third of the transportation sector's NOx emissions by 2025. NOx is a precursor of both ozone and fine particulate matter (less than 2.5 microns in diameter, PM_{2.5}). EPA has not revised NOx standards for on-highway heavy-duty trucks and engines since January 2001. In 2013, CARB [adopted optional low-NOx emission standards](#) for heavy-duty vehicles, intending to allow engine manufacturers to showcase new technologies that could reduce emissions to 90% below the current standard.

The South Coast Air Quality Management District (South Coast) controls air pollution in the Los Angeles metropolitan area by regulating stationary sources, and in 2016, it led a coalition of state and local environmental agencies that [petitioned the EPA](#) to adopt more stringent NOx standards for heavy-duty trucks. South Coast, along with a separate [petition filed by the San Joaquin Valley Air Pollution Control District](#), argued that they will need significant additional reductions of NOx emissions from mobile sources in order to meet the National Ambient Air Quality Standards for ozone and PM2.5 by the relevant attainment dates.

Mobile sources are not subject to either petitioners' jurisdiction and, while CARB has special authority to regulate vehicle emissions more stringently than EPA, both CARB and the petitioners have [argued](#) that vehicles purchased out-of-state account for the majority of heavy-duty vehicle miles traveled in the South Coast's jurisdiction. The area includes two of the nation's largest marine ports that bring in nearly 40% of the nation's goods, which results in significant on-road emissions from heavy-duty trucks moving those goods through the region. The petitioners argued that a federal standard was therefore critical to their attainment of ambient air quality standards and sought a 90% reduction from the current 0.2 grams per brake horsepower-hour (g/bhp-hr) NOx standard down to 0.02 g/bhp-hr.

In late 2016, EPA responded to the petitioners and, without committing to a specific standard, [agreed to prepare a Notice of Proposed Rulemaking](#) for a new on-highway heavy-duty NOx program. The EPA stressed that it would "work closely with CARB" to develop "a new harmonized Federal and California program to reduce NOx emissions."

The CTI announcement signals that EPA is interested in continuing its work to reduce NOx emissions from on-highway heavy-duty trucks and engines, notwithstanding its ongoing effort to revise light-duty vehicle GHG standards and abridge California's authority to regulate GHG emissions more stringently. (Separate battles could also emerge between the federal government and California with respect to heavy-duty vehicles and trailers as a result of the potential divergence between federal and CARB standards.¹)

EPA also seeks to pair its new NOx emissions standard with deregulatory reforms that "cut unnecessary red tape" and "simplify[] compliance requirements for heavy-duty trucks and engines." EPA will focus its deregulatory efforts on "onboard diagnostic requirements, cost-effective means of reassuring real world compliance by using modern and advanced technologies, the deterioration factor testing process, and concerns regarding annual recertification of engine families." EPA has not begun accepting public comments, nor detailed the specific deregulatory actions it is preparing to take.

¹ With the National Highway Traffic Safety Administration (NHTSA), EPA has separately adopted GHG emission standards for heavy-duty vehicles, with the [Phase 1 regulation](#) for heavy-duty engines and vehicles going into effect for model year (MY) 2014 vehicles and [Phase 2](#) regulation establishing the first emission requirements for trailers hauled by heavy-duty tractors starting in MY 2018. The Phase 2 regulation has been stayed to the extent it applies to trailers (*see Truck Trailer Manufacturers v. EPA, et al.*, No. 16-1430 (D.C. Cir. stayed Oct. 27, 2017)), and EPA is reportedly reconsidering the trailer standards; but, on September 27, 2018, CARB [adopted](#) its own Phase 2 rule to harmonize with the existing federal GHG standards, with some differences, including requirements for CARB to verify heavy-duty certification information due in part to concerns that EPA might weaken the existing GHG standards.

CARB is not waiting for EPA to act. On November 15, 2018, CARB [adopted](#) comprehensive updates to the HD OBD rules for the first time since 2012. Under CARB's previous rules, the general emissions performance of most vehicles could only be observed in a laboratory setting; only component malfunctions triggered real-time responses in OBD systems. The REAL program requires OBD systems to collect and store NOx emissions data—not just flag malfunctions—on in-use medium- and heavy-duty diesel vehicles starting in the 2022 model year. [The amended OBD regulations](#) also require OBD systems to collect and store fuel consumption data for all heavy-duty vehicles in-use. This data would be used to characterize the vehicles' CO₂ emissions. A similar requirement is already in place for light- and medium-duty vehicles starting in model year 2019. CARB Staff anticipates that implementing REAL, and its other proposed revisions, will cost consumers an additional \$42.46 per vehicle.

While CARB staff must propose additional modifications to the proposal for public comment and otherwise satisfy the requirements of the California Administrative Procedure Act before the amended HD OBD rules are final, the amendments do not need to go back to CARB's board for approval.

Implementing CTI and REAL

EPA's announcement of the CTI comes just as CARB prepares to implement REAL and its own [Phase 2 GHG regulation for heavy-duty vehicles and trailers](#). The CTI may provide stakeholders an opportunity to seek alignment of EPA and CARB NOx standards and maintain alignment between federal and state GHG standards for heavy-duty trucks.

Covington will continue to monitor CTI, REAL, and other developments in vehicle emissions standards to assist stakeholders in understanding and influencing these developments. Our attorneys have deep experience advising clients on the legal, policy, and practical dimensions of vehicle emissions standards, both at the federal level and in California. Based in Washington, and with offices in San Francisco, Palo Alto, and Los Angeles, we are uniquely positioned to advise clients on the dynamic relationship between federal and California policy on vehicle emissions.

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