



September 8, 2021

## PROPOSAL TO CARB: RETIRE OLD DIESEL TRUCKS AFTER USEFUL LIFE

Requiring the retirement of old heavy-duty diesel trucks is probably the single biggest step that CARB could take to reduce air pollution and improve lung health in California. Adopting such a measure would require no additional statutory authority; only willingness by the Board to take this life-saving step. The measure should be included in the Mobile Source Strategy, the Advanced Clean Fleets rule, and the State Implementation Plan, and begin to take effect in 2024.

### *How Does State Law Define "Useful Life?"*

Section 43021 of the Health and Safety Code, enacted by SB 1 in 2017, intends to provide "certainty about the useful life of engines." The provision prohibits CARB from requiring the retirement, replacement, retrofit, or repower of heavy-duty trucks until they have reached at least 13 years of age and then reach either 800,000 miles or 18 years, whichever comes first. This definition of useful life was *de facto* sponsored by the California Trucking Association. However, nothing currently requires heavy-duty trucks to be removed from operation at the end of their useful life.

### *What are the benefits of retiring old trucks?*

1. Combustion engines and emission controls degrade as mileage and time accumulate, so older fossil fuel trucks almost always emit more per mile than younger ones;
2. Before 2013, heavy duty trucks did not have on-board diagnostics (OBD), which means their emission controls are not as robust and excessively polluting trucks will not be identified as well by CARB's proposed Inspection and Maintenance rule, which will rely heavily on OBD;
3. All new trucks sold from 2024 onward will have to meet stronger NO<sub>x</sub> standards from the Heavy-Duty Omnibus (HDO) rule. Mandated retirement will shrink the overall pool of pre-2024 diesel vehicles; and
4. Mandating retirement will provide more opportunities for the deployment of cleaner technologies and enable better planning by providing more certainty on truck turnover. For instance, the upcoming Advanced Clean Fleets rule would drive an increasing number of purchases of zero emission (ZE) trucks. New entrants to the Drayage Truck Registry would have to be ZE from 2023 on.

### *What NO<sub>x</sub> Reductions Could Be Achieved?*

CARB staff ran a scenario where California trucks at the end of their useful life were replaced with ZE trucks. NO<sub>x</sub> emission reductions from this fleet turnover scenario are 33 tons per day in 2031 for 139,000 vehicles and 31 tpd in 2037 for 197,000 vehicles. To put these numbers into perspective, the Advanced Clean Trucks (ACT) and HDO rules together will result in 24 tpd and 48 tpd of NO<sub>x</sub> reduction in 2031 and 2037, respectively. While not all trucks would be replaced by zero emission vehicles, this scenario illustrates the magnitude of reductions that are possible.

### *What Trucks Would Replace Those Being Retired?*

Any compliant truck would be allowed in sectors other than drayage, so they would have to meet the existing standards of the Truck and Bus Rule, the upcoming requirements of the Heavy-Duty Inspection and Maintenance rule, and fall within the SB 1 "useful life" definition. The upcoming Advanced Clean Fleets rule would drive an increasing number of purchases of zero emission trucks. New entrants to the Drayage Truck Registry would have to be ZE from 2023 onwards. Scrappage of retired trucks would not be required, unless the owner is participating in an incentive program that requires scrappage.

### *How Would this Affect Small Fleets?*

CARB, through HVIP, and the Legislature, through SB 372, are working on ways to assist small fleets to make the transition to ZEV trucks. Nevertheless, it's likely that many small fleets in the near term will choose to purchase used diesel trucks. Compliance would not be onerous; for example, a trucker in 2024 could replace a 2010 truck with a 2019 model and expect to be able to operate it for another 8-13 years. CARB should adjust its incentive programs to help small fleets

to purchase ZE trucks, including consideration of compensating these fleets fairly for any remaining residual or salvage value of trucks that are required to be scrapped.

*Which Trucks Would Be Covered, and Which Would Be Exempt?*

All heavy-duty internal combustion engine powered trucks that have reached the end of their useful lives would become ineligible to operate on California roads. This prohibition would not apply to trucks certified as zero-emission.

Respectfully Submitted,

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