Facts about the Low NO_x Heavy-Duty Omnibus Regulation

Proposed regulation will ensure reductions in smog-forming NO_x, protect communities most impacted by air pollution

Why is it important to reduce NO_x emissions?

Oxides of nitrogen, or NO_x, is a precursor to smog which can cause or exacerbate numerous respiratory and other health ailments and is also associated with premature death. All combustion engines produce NO_x and although technology has advanced markedly through the decades, California must still do more to reduce NO_x emissions from mobile sources, especially trucks.

Trucks, NO_x and communities

Communities adjacent to railyards, ports and warehouses experience heavy truck traffic, with trucks often idling and driving slowly, with frequent stops. Today's heavy-duty trucks do not control NO_x emissions effectively during such low load conditions. The new standards proposed within the Low NO_x Heavy-Duty Omnibus Regulation will cut truck emissions, including during low load conditions. Thus, the Regulation will help to reduce adverse health impacts and improve air quality throughout the state, especially in these areas which are disproportionately impacted by truck emissions.

Benefits of the Omnibus Rule (from 2024 through 2050)

Of all the measures in the State Implementation Plan (California's blueprint for meeting federal air quality standards), the Heavy-Duty Omnibus Rulemaking is expected to provide the most NO_x emission benefits – 24 tons per day (tpd) in 2031 for California-only standards.

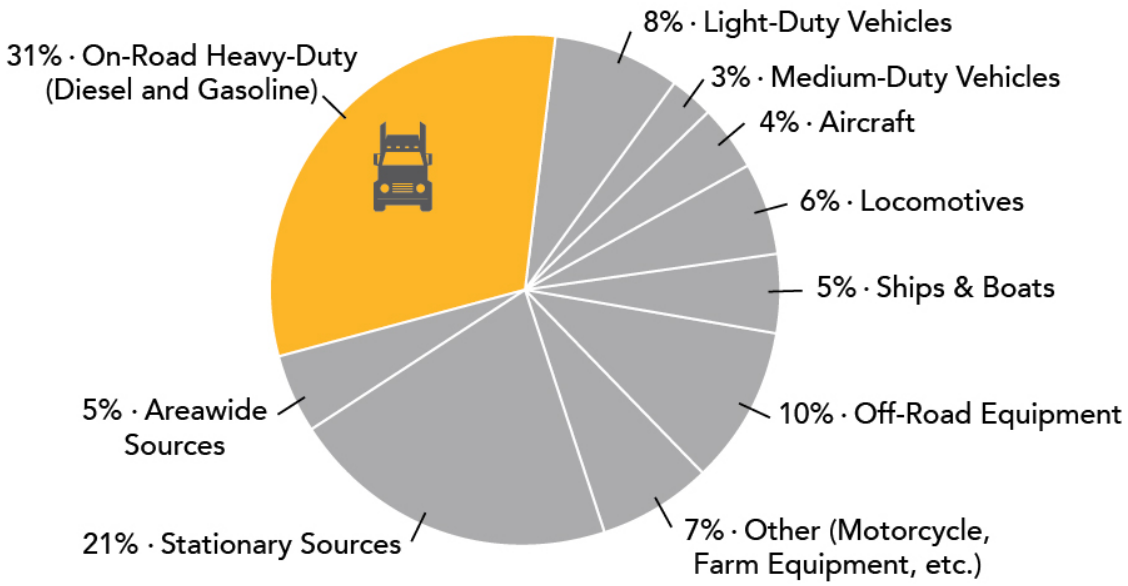
These NO_x reductions are the equivalent of taking 16 million light-duty cars off the road. This will result in roughly 3,900 avoided premature deaths and 3,150 avoided hospitalizations statewide over the life of the rule.

The rule will also have total statewide health benefits of approximately $36.8 billion.

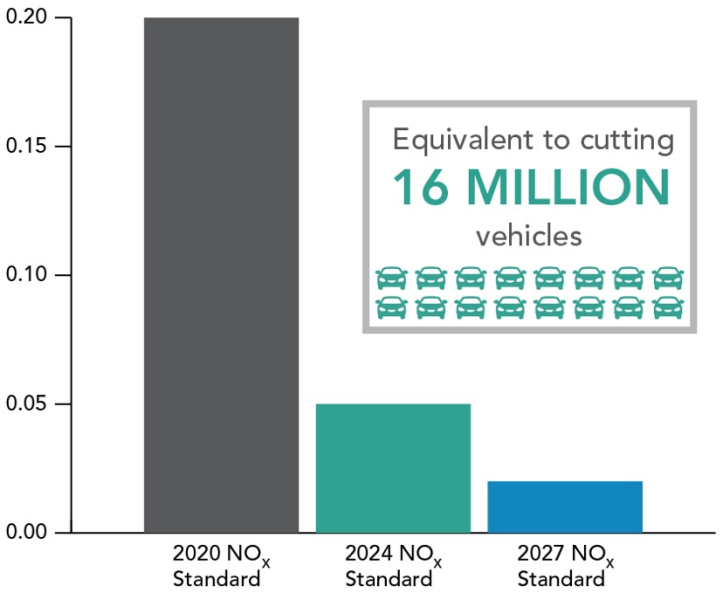
On-road heavy-duty engine and vehicles

Heavy-duty trucks comprise the largest source of NO_x in the state, contributing nearly a third of all statewide NO_x emissions as well as more than a quarter of total statewide diesel particulate matter (PM) emissions. If California is to meet its health-based ambient air quality standards, we need to reduce levels of NO_x emissions from on-road heavy-duty trucks by 85 percent. This will help us achieve the 2008 75 ppb ozone standard required by 2031 in the South Coast region.

Sources of NO_x Emissions in California



Proposed regulation delivers 90% Reduction in Allowed NO_x



Heavy-Duty Omnibus Regulation

The California Air Resources Board's proposed Heavy-Duty Omnibus Regulation would dramatically reduce NO_x emissions by comprehensively overhauling exhaust emission standards, test procedures and other emissions-related requirements for 2024 and subsequent model year California-certified heavy-duty engines. Highlights of the regulation include:

- Lower NO_x and PM emission standards on existing regulatory cycles as well as a new NO_x standard on a new low load certification cycle. The NO_x standards would be cut to about 75 percent below current standards beginning in 2024 and 90 percent below current standards in 2027.
- A revamping of the heavy-duty in-use testing program;
- Warranty, Useful Life, and Emissions Warranty Information and Reporting improvements;
- Strengthening the heavy-duty durability demonstration program;
- Emissions averaging, banking, and trading program improvements; and
- Powertrain certification test procedures for heavy-duty hybrid vehicles.

The Low NO_x Heavy-Duty Omnibus Regulation is slated to be considered by the California Air Resources Board at its August 27, 2020 hearing.