
SAE
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EPA Efforts to Reduce NOx Emissions From Heavy-Duty Onroad Vehicles
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*This meeting is co-located with
THE WASHINGTON AUTO SHOW
The Public Policy Show

OVERVIEW

- **Motivation**
- **Impact of Emissions from HD Vehicles**
- **The *Cleaner Trucks Initiative***
- **Preliminary Rulemaking Timeline and Current Status**
- **Point of Contact**

Motivation

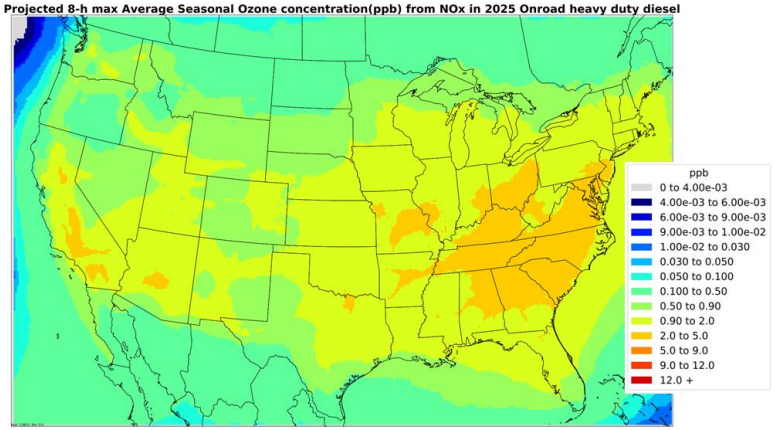
- **EPA last revised NOx standards for heavy-duty (HD) trucks nearly 20 years ago**
- **We have an opportunity to modernize the requirements to better reflect the capability of available emissions control technologies**
- **Our current emissions performance standards have lowered overall NOx emissions, but have not encouraged effective emission control under low-load conditions (e.g. when at idle, moving slowly, or in stop-and-go traffic)**
  - *By addressing low-load operation, we can reduce NOx emissions in cities and in areas of high traffic, where it will make a big difference to communities*

Impact of NOx Emissions from Heavy-Duty Diesel Vehicles

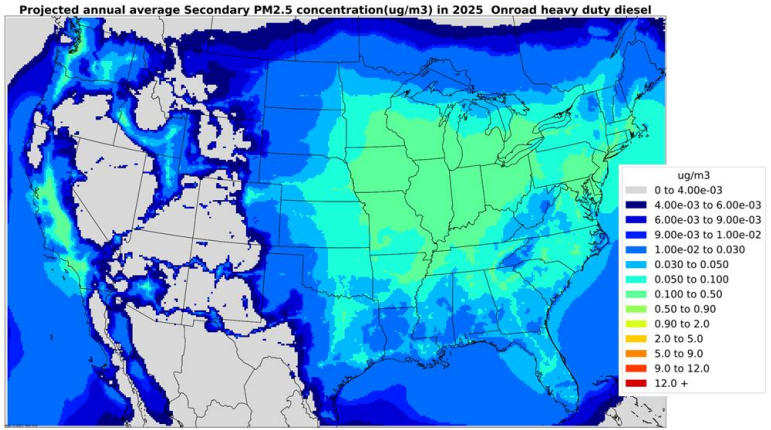
- **Highway Heavy-Duty Diesel Vehicles**
  - Largest single contributor to mobile source Nox
  - One of the largest mobile source contributors to ozone in 2025
  - Significant mobile source contributor to PM2.5 in 2025, due to—
  - NOx emissions which form PM
  - Directly-emitted PM
- **Many HD vehicles travel interstate, and areas impacted most by NOx emissions are distributed around the country**
  - June 2016: South Coast AQMD along with 20 other state and local government agencies petitioned EPA to reduce the federal highway heavy-duty engine NOx standards

Impact of NOx Emissions from Heavy-Duty Diesel Vehicles*

NOx Contribution to Ozone in 2025



NOx Contribution to Ambient PM2.5 in 2025



* Zawacki, et al. https://doi.org/10.1016/j.atmosenv.2018.04.057

The *Cleaner Trucks Initiative*

- **On November 13, 2018, EPA Administrator Andrew Wheeler announced the *Cleaner Trucks Initiative* (CTI) to address emissions from new heavy-duty trucks and engines**
- **Our objective is to achieve lower NOx emissions *nationwide*—**
  - Ensure real-world emissions reductions in all conditions throughout the workday
  - Investigate options for improving current certification and in-use testing req's
  - Pursue a national, harmonized program (California already working on a low NOx program)
- **Focus on NOx, but take a broad look at other heavy-duty engine emissions**
- **Identify cost-effective means of ensuring real-world compliance and explore opportunities to streamline existing requirements**

CTI Rulemaking Timeframe and Current Status

- **Targeting 2020 for a notice of proposed rulemaking (NPRM)**
  - Comment period after proposal, followed by final rulemaking (FRM)
- **Currently in the information-gathering stage:**
  - Early outreach to stakeholders (e.g. OEMs, Suppliers, States, Tribes, Labor, Fleets/OO, Env. NGOs, and Dealerships)
  - Continuing engagement and coordination with California Air Resources Board (CARB) staff on technical work
  - Assessing technical feasibility
  - Evaluating effectiveness of advanced technologies and compliance strategies
  - Planning for cost, benefit, inventory, air quality, and economic analyses

CTI Stakeholder Engagement (to-date)

User Community

OOIDA — Owner-Operator Independent Drivers Association
ATA — American Trucking Associations
NTEA — The Association for the Work Truck Industry
ATD — American Truck Dealers, A Division of NADA

State/Local/Tribal Governments & Air Associations

NTAA — National Tribal Air Association
NACAA — national association of clean air agencies
AAPCA — Association of Air Pollution Control Agencies
CAPCOA
ECOS
South Coast AQMD
California Air Resources Board

Suppliers & Labor

UAW
MECA
EATON
MEMA
TENNECO
BASF
JM Johnson Matthey — Inspiring science, enhancing life

Clean Air & Env. NGOs

EDF — Environmental Defense Fund — Finding the ways that work
NRDC — Natural Resources Defense Council
icct — The International Council on Clean Transportation
American Lung Association
Union of Concerned Scientists — Science for a Healthy Planet and Safer World

OEMs

EMA — Truck & Engine Manufacturers Association
PACCAR
Cummins
HINO
GM
DETROIT
DAIMLER
ISUZU
VOLVO TRUCKS
NAVISTAR
Ford
FCA

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