



# **Greenhouse Gas (GHG) Emission Requirements for Heavy-Duty Engines and Vehicles - Overview**

Industry/EPA/NHTSA Workshop

Washtenaw Community College

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# The U.S. Heavy-Duty Sector

vocational  
vehicles,  
regulated via  
the chassis



full-size pickup  
trucks & work  
vans



semi tractors,  
no trailers



# GHG Program Overview



- EPA and NHTSA have coordinated to assure efficient implementation of this rule:
  - Same application to HD vehicles
  - Equivalent CO2 and fuel consumption standards
  - Equivalent CO2 and fuel consumption credit calculations
  - Allows coordinated approvals where EPA receives and renders approvals/disapprovals in consultation with NHTSA.
  - Requires single reporting by manufactures to satisfy both agencies' provisions.
  - EPA is the single point of entry for submitting information to agencies
  - Coordinated enforcement processes
  - EPA designated as principle point of contact for both agencies

# GHG Program Overview



- Begins with 2014 model year and increases in stringency through 2018 model year
- Breaks diverse truck sector into 3 distinct categories with unique approaches for each
  - Combination Tractors
  - Heavy-duty pickups and vans
  - Vocational vehicles (everything else, buses, refuse trucks, concrete mixers, ambulances, etc. )
- Sets separate standards for engines as well as vehicles ensuring improvements in both vehicles and engines
- Sets separate standards for CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub> and HFCs. NHTSA is setting complementary fuel consumption standards.
- Provides incentives for early introduction of GHG-reducing technologies and advanced technologies including EVs and Hybrids
- Provides manufacturer flexibilities including Averaging, Banking and Trading, among other provisions

# Workshop Objectives



- Focus on processes leading-up-to approving manufacturer's certificates of conformity
  - Pre-certification meetings
  - Preliminary approvals
  - Joint approvals for innovative technologies and off-road petitions
  - Pre-model year (PMY) reports
  - Application for certificates of conformity
- Follow-up Workshops will be considered as needed



# HD Pickup Trucks and Vans Applicability

1037.104, 1037.150 (a, b, c, e, f, g, h, i, l, m), 1037.740, 1037.801

- Applicable to 2014 and later model year new heavy-duty Vehicles
  - Specifically regulates emissions of carbon dioxide, nitrous oxide, methane, and hydrofluorocarbons
- Excluded Vehicles include:
  - Vehicles not meeting definition of “motor vehicle” or “heavy-duty vehicle”
  - Medium-duty passenger vehicles
  - Vehicles produced before 2014 model year, unless certified under §1037.150 (except early credits provision)
  - Vehicles subject to light-duty greenhouse gas standards of 40 CFR part 86
  - Small manufacturers qualifying under Small Business Administration regulations at 13 CFR 121



# Tractor and Vocational Vehicle Applicability

1037.1, 1037.5, 1037.150(c) and (g), 1037.801

- Applicable to 2014 and later model year new heavy-duty vocational vehicle chassis and combination tractors
  - Specifically regulates CO<sub>2</sub> emissions
  - Regulates HFC emissions from combination tractors
  - Compliance date: compliance is optional prior to January 1, 2014
- Excluded Vehicles include:
  - Vehicles not meeting definition of “motor vehicle” or “heavy-duty vehicle”
  - Medium-duty passenger vehicles
  - Vehicles produced before 2014 model year, unless certified under 1037.150
  - Vehicles subject to light-duty greenhouse gas standards of 40 CFR part 86
  - Small manufacturers qualifying under Small Business Administration regulations at 13 CFR 121
  - Off-road vocational vehicles and vocational tractors (although their engines are not exempted)
  - Trailers





# Heavy-Duty Engines Applicability

1036.1, 1036.5, 1036.150(d), 1036.801

- Applicable to 2014 and later model year new heavy-duty engines
  - Specifically regulates emissions of carbon dioxide, nitrous oxide, and methane
- Excluded Engines are:
  - Engines used in medium-duty passenger vehicles
  - Engines that do not provide motive power
  - Aircraft engines
  - Engines that are not internal combustion engines, such as fuel cells
  - Engines in heavy-duty vehicles that are subject to light-duty GHG standards
  - Vehicles subject to light-duty greenhouse gas standards of 40 CFR part 86
  - Engines produced by small manufacturers qualifying under Small Business Administration regulations at 13 CFR 121





# Small Manufacturer Provisions 1036.150(d) and 1037.150(c)

## Heavy-Duty Engine Manufacturers:

- Manufacturers meeting the small business criteria specified in 13 CFR 121.201 for “Gasoline Engine and Engine Parts Manufacturing” or “Other Engine Equipment Manufacturers” are not subject to the greenhouse gas standards
- Excluded engines must include a label with the following statement:  
“THIS ENGINE IS EXCLUDED UNDER 40 CFR 1036.150(d).”

## Combination Tractor Manufacturers and Vocational Vehicle Chassis Manufacturers:

- Manufacturers meeting the small business criteria specified in 13 CFR 121.201 for “Heavy Duty Truck Manufacturing” are not subject to the greenhouse gas standards
  - NAICS Code 336120: 1,000 employees
- Excluded vehicles must include a label with the following statement:  
“THIS VEHICLE IS EXCLUDED UNDER 40 CFR 1037.150(c).”

Qualifying manufacturers must notify the Designated Compliance Officer each model year before introducing these excluded vehicles into U.S. commerce. This notification must include a description of the manufacturer’s qualification as a small business under 13 CFR 121.201.



# Manufacturer Code and CDX Access

- The first step in the certification process is to obtain a manufacturer code.
- The second step is to obtain access to CDX.
- For new manufacturers, there will be a short presentation today to cover these processes in more detail



# Compliance Information

- EPA is committed to both protecting CBI and to achieving transparency in implementation of the GHG program
- EPA currently publishes:
  - Compliance Report
  - Certification data (certification testing summary)
- EPA does not consider emissions data to be CBI, as such the GEM outputs will not be treated as CBI
- For GHG, EPA intends to publish as much non-CBI information for each manufacturer after the end of the model year as possible



# Today's Workshop Agenda

9:30 -10:30	Class 2b-3 HD Pickup Trucks and Vans
10:30-11:30	HD Engines
11:30-11:45	For New Manufacturers- Securing Mfr's Code and CDX access
11:45 - 12:45	Lunch
12:45- 3:00	Combination Tractors and Vocational Vehicles
3:00-3:15	Closing Statements



## For More Information:

- A copy of the presentation & GHG rulemaking documents will be available at:
  - [www.epa.gov/otaq/climate/regulations.htm](http://www.epa.gov/otaq/climate/regulations.htm)
- Certification templates will be available at: (after we get our ICR clearance)
  - [www.epa.gov/otaq/certdat2.htm](http://www.epa.gov/otaq/certdat2.htm)
- See Federal Register 76 FR 57106, September 15, 2011
- See Code of Federal Regulations, 40 CFR Parts 1036, 1037, 1065, 1066; and 49 CFR Parts 523, 534, 535
- Contact your EPA team member