



# **Heavy-Duty Inspection and Maintenance Program Development Updates:**

## **MSF Committee Meeting**

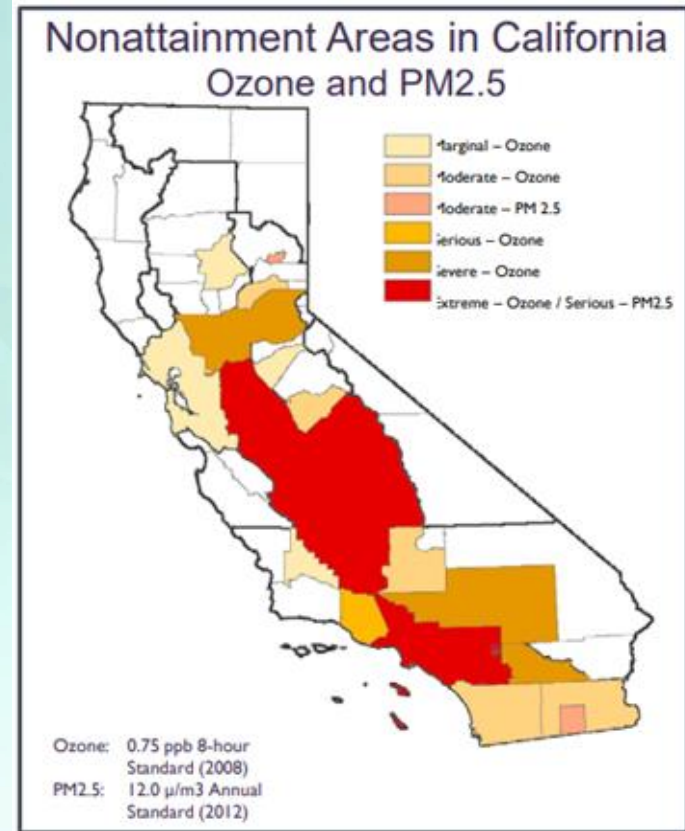
**January 26, 2021**

# Today's Agenda

- Background
- Senate Bill 210
- HD I/M Program Elements
- HD I/M Phase-In Structure
- Q&A

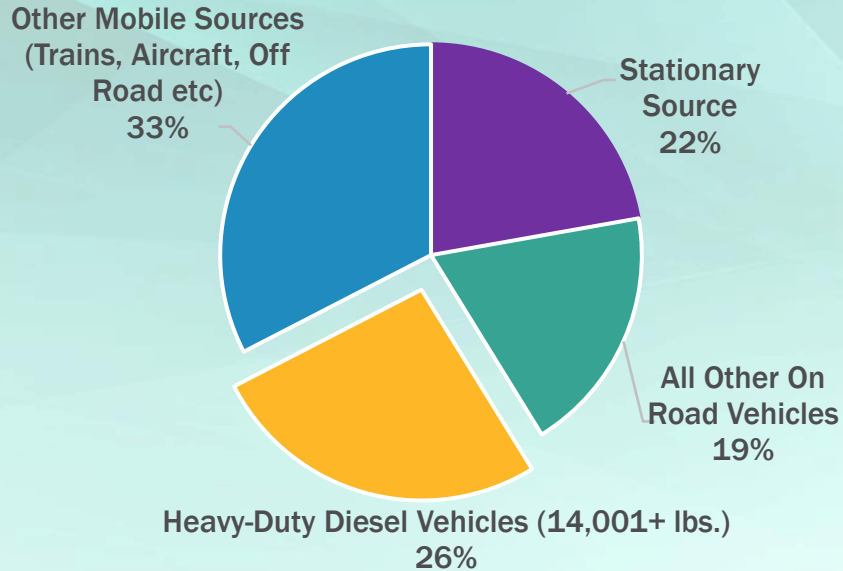
# CA's Air Quality Challenges

- Over 12 million Californians breathe unhealthy air
- Key challenges
  - South Coast ozone
  - San Joaquin Valley particulate matter (PM 2.5)
- HD trucks remain one the largest emissions contributors in the state

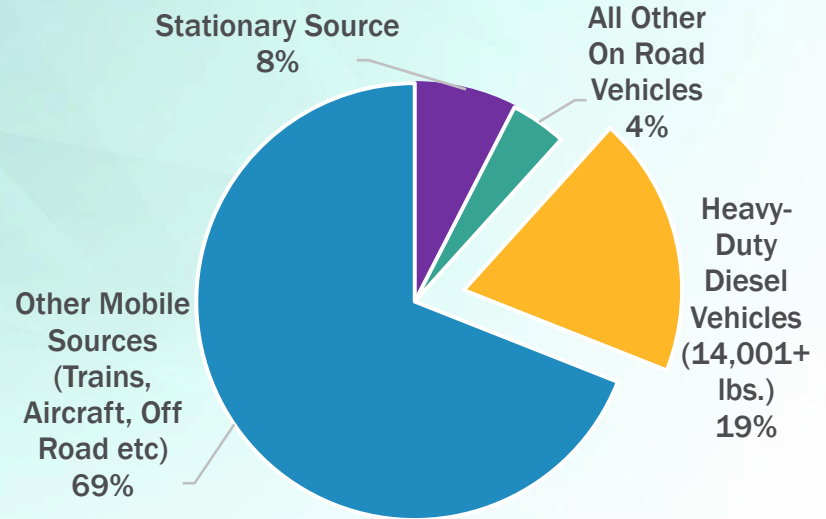


# Emissions by Source in California

## NOx Emissions by Source 2019



## Diesel PM2.5 Emissions by Source 2019



# Current Inspection Programs

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## HDVIP

- Roadside inspections by CARB enforcement staff for excessive smoke and tampering

## PSIP

- Annual self-testing for California fleets of two or more vehicles

Requires vehicles to meet opacity limits to operate in California



# Malfunctioning Emissions Control System Operation

- Many vehicles continue to operate with malfunctioning emissions controls
- Recent studies found that 13% of trucks were operating with an illuminated Malfunction Indicator Light (MIL)
- Revamped inspection program needed to go beyond current opacity based focus



# Senate Bill 210

- SB 210 (Leyva; Statutes of 2019) directs CARB to develop and implement a new, comprehensive HD I/M program, in coordination with partner State agencies
  - Target excess NO<sub>x</sub> and PM emissions from in-use vehicles
  - Require all vehicles operating in California to comply
  - Allow OBD system checks to identify malfunctioning emissions-related components in applicable engines
- Program objectives:
  - Maintain low emissions throughout a vehicle's life
  - Ensure emissions control systems are functioning properly
  - Minimize inspection downtime for vehicle owners



# SB 210: Vehicle Applicability

- All heavy-duty vehicles (non-gasoline) with gross vehicle weight ratings (GVWR) > than 14,000 pounds operating in California subject to program
  - In-state, out-of-state/country
- Gasoline heavy-duty vehicles > 14,000 pounds not covered because already subject to BAR's Smog Check program
- Exceptions for zero emission, emergency, and military tactical vehicles





# High Level HD I/M Elements

- Periodic testing requirements for emissions related vehicle components
- Complement periodic testing efforts with new enforcement mechanisms to enhance compliance and limit fraud
  - Remote sensing infrastructure
  - Compliance certificate
  - Tie to DMV registration

# Vehicle Compliance Testing: Periodic Testing Requirements

- Periodic testing requirements for emissions related vehicle components
  - 2013+ MY Engines: OBD equipped vehicles
    - OBD test submission: 4x per year
  - Pre-2013 MY engines: Non-OBD equipped vehicles
    - Opacity test submission and visual inspection: 2x per year

# Periodic Testing Options

- OBD equipped vehicles
  - CARB-certified telematics service providers
    - Continuously connected devices on the vehicle
  - HD I/M Approved Testers
    - Similar to current PSIP testing structure
  - CARB-certified devices at approved private locations
- Non-OBD vehicles
  - Maintain SAE J1667 opacity testing procedure
  - Include additional visual inspection
  - Testing to be done by HD I/M Approved Testers



# Enhancing Enforcement Mechanisms



# Remote Sensing Monitoring Network

- Deployment of real-time emissions monitoring equipment throughout the state that identifies high emitters for potential follow up testing
- Collected data combined with periodic testing data to enhance ability to detect potential fraudulent activity



# ALPR Camera Network



- Captured license plates would be cross-checked with HD I/M database to identify vehicles operating in CA without a valid Compliance Certificate

# Compliance Certificate

- SB 210 requires vehicles to possess a valid HD I/M Compliance Certificate to legally operate in California
- Criteria being considered to obtain Compliance Certificate
  - In good standing with periodic testing requirements
  - No outstanding enforcement issues, for example, outstanding citations, high emitter issues
  - Pay compliance fee
- DMV registration block would be placed on California vehicles operating without a valid certificate

# Enhanced Field Enforcement Efforts

- Continued CARB field inspection efforts in coordination with CHP
- SB 210 also authorizes CHP to:
  - Check for illuminated MIL light in vehicle
  - Check for valid compliance certificate
  - Check for visible smoke



# HD I/M Implementation: Proposed Program Phase-In

- First Phase – Begins **January 1, 2023**
  - High emitter vehicle screening
- Second Phase – Begins **July 1, 2023**
  - Enforcement of compliance certificate requirements starts
  - DMV registration holds for California registered vehicles start
- Third Phase – Begins **January 1, 2024**
  - Periodic testing starts

# HD I/M Development and Next Steps

- Multiple public workshops and workgroup meetings throughout 2019 and 2020
- Most recent workgroup meetings:
  - December 17, 2020: Draft HD I/M regulatory concepts
- Additional HD I/M workgroup meetings and workshops throughout 2021
  - Enforcement HD I/M workgroup expected in February 2021
- Board hearing: December 9-10, 2021

## For More HD I/M Program Information

- Visit CARB's website at: <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>
- Subscribe to receive HD I/M email updates at: [https://public.govdelivery.com/accounts/CARB/subscribe/new?topic\\_id=hdim](https://public.govdelivery.com/accounts/CARB/subscribe/new?topic_id=hdim)
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# Q&A