



Heavy-Duty Vehicle Inspection and Maintenance (HD I/M) Program

**Virtual One Stop Event
January 25, 2021**

Today's Presentation

- Senate Bill 210 (Leyva; Statutes of 2019)
 - Affected Vehicles
- Proposed HD I/M program structure and implementation phase-in
 - Periodic vehicle compliance testing
 - HD I/M-approved testers
 - Roadside high emitter vehicle screening
 - HD I/M compliance certificate
 - Proposed program phase-in
- Program development and next steps

Senate Bill (SB) 210

- SB 210 directs CARB to develop and implement a new, comprehensive HD I/M program, in coordination with partner State agencies
 - Target excess NOx and PM emissions from in-use vehicles
 - Require all vehicles operating in California to comply
 - Allow on-board diagnostic (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
 - Ensure quick and adequate repair of malfunctioning parts



SB 210: Affected Vehicles

- Approximately 1.2 million non-gasoline vehicles with a gross vehicle weight rating (GVWR) >14,000 pounds operating in California
 - In-state, out-of-state, and out-of-country vehicles
 - Diesel, alternative fuel, and hybrid vehicles
 - OBD-equipped and non-OBD vehicles
 - Over 80% are OBD-equipped (generally 2013+ model year engines)
- Gasoline heavy-duty vehicles >14,000 pounds GVWR will not be included in HD I/M because already covered in BAR's Smog Check program
- Zero emission vehicles exempt



Proposed HD I/M Program Structure and Implementation Phase-In



Periodic Vehicle Compliance Testing

- On-Board Diagnostics (OBD)-equipped vehicles
 - OBD testing – various methods
 - Quarterly OBD data submittals
- Non-OBD equipped vehicles
 - SAE J1667 smoke opacity testing
 - Biannual (twice/year) data submittals

OBD vehicles include:

- 2013+ MY diesel engines or diesel hybrid systems
- 2018+ MY alternative fuel engines or alternative fuel hybrid systems

Proposed Periodic OBD Testing Requirements

- OBD data submission
 - Collect/submit OBD data required in HD OBD regulations, section 1971.1, title 13, CCR
- Passing criteria for OBD data submissions:
 - No Malfunction Indicator Light (MIL)-on events
 - No active fault codes
 - No permanent codes



Illuminated Malfunction Indicator Light (MIL)

HD I/M Inspection Methods: OBD-Equipped Vehicles

- CARB-certified telematics service providers
 - Original equipment manufacturer or aftermarket telematics service providers
- CARB-certified OBD data collection tools operated by HD I/M-Approved Testers
- CARB-certified dongles and/or kiosks operated at approved private locations throughout California



HD I/M Inspection Methods: Non-OBD Vehicles



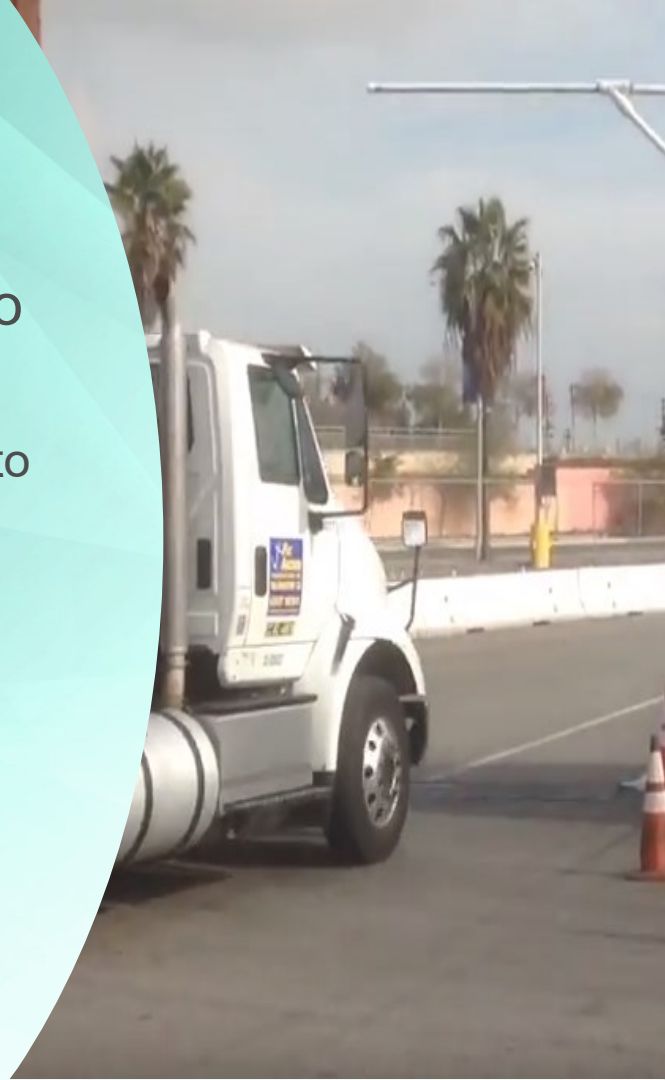
- Maintain current SAE J1667 opacity test procedure and thresholds
 - 5% for DPF equipped vehicles
 - Ranges from 5%-40% for non-DPF vehicles depending on model year
- Perform visual inspection
 - Check for tampering, emission control label, odometer reading, and presence of illuminated MIL
- Submission of test results to HD I/M database

HD I/M-Approved Testers

- Individuals performing compliance testing and submitting data must register with the HD I/M program as an approved tester
- Training required to become a HD I/M-approved tester
 - Training requirements still under development

Roadside High-Emitter Vehicle Screening

- Roadside screening systems will be used to identify high emitting vehicles with excess PM and NOx on the road
 - Holds out-of-state/country vehicles accountable to same program standards as in-state vehicles
- High emitters would be required to demonstrate compliance
- Compliance demonstration would follow periodic inspection methods discussed earlier



HD I/M Compliance Certificate

- SB 210 requires vehicles to possess a valid HD I/M compliance certificate to legally operate in California
- Criteria to obtain compliance certificate:
 - Meet periodic inspection requirements
 - No outstanding HD I/M violations
 - Pay program compliance fee – cost still to be determined
- Verifying Compliance
 - DMV registration requires a valid compliance certificate for registration
 - DMV registration block to be placed on California vehicles operating without a valid certificate
 - Out-of-state/country vehicles must also obtain compliance
 - CARB/CHP inspectors to perform in-field checks

HD I/M Implementation: Proposed Program Phase-In

- First Phase – Begins **January 1, 2023**
 - High emitter vehicle screening with focus on the San Joaquin Valley
- 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 Program Development and Next Steps



HD I/M Development: Public Process So Far

- Three public workshops since February 11, 2019
- Seven workgroup meetings since May 14, 2019
 - November 16, 2020: Pilot Program Activities and On-Board Diagnostics (OBD) Specifications
 - December 17, 2020: Draft regulatory concepts
- Draft regulatory concepts document available at: [Draft Heavy-Duty Vehicle Inspection and Maintenance \(HD I/M\) Regulatory Concepts – December 2020 \(ca.gov\)](#)

Next Steps

- 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
- Implementation: phase-in starting in 2023

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/subscriber/new?topic_id=hdim
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