Potential Changes to CARB’s Heavy-Duty Truck Inspection Programs

Third Workshop

Public Workshop
Sacramento, CA
May 17th, 2017

California Environmental Protection Agency
Air Resources Board
Questions and Comments

• During the workshop, please submit any questions or comments to the following email address:

sierrarm@calepa.ca.gov
Outline

• Review of Current Smoke Inspection Program Requirements

• Proposed Changes to Smoke Inspection Programs
  • Opacity Limits
  • Reporting Requirements
  • Smoke Tester Training
  • NEW!: indicates changes since February workshop

• HD Inspection and Maintenance Program

• Contacts
Schedule

• Potential Changes: Heavy-Duty Vehicle Inspection Program (HDVIP)/Periodic Smoke Inspection Program (PSIP)
  • First Workshops: Aug/Sept 2016
  • Second Workshop: February 28, 2017
  • Third Workshop: May 17, 2017
  • Board date: Planned Oct 2017
  • Implementation: Late Summer 2018

• Heavy-Duty Inspection and Maintenance Program
  • Board date: Planned 2020
  • Implementation: Post-2020
Current Inspection Programs
Current On-Road HD In-Use Programs

- **HDVIP**
  - Roadside inspections by CARB enforcement personnel for excessive smoke, tampering, and engine certification label compliance

- **PSIP**
  - Annual self-testing for California fleets of 2 or more vehicles
Current Smoke Inspection Requirements

- 40% opacity limit for 1991 MY & newer diesel engines
- 55% opacity limit for 1990 MY & older diesel engines
- Snap acceleration opacity test
  - SAE J1667 compliant smoke meter
- Maintain PSIP records for 2 years
Proposed Changes to CARB’s Smoke Inspection Programs

- Lower Opacity Limit for both HDVIP & PSIP
- PSIP Reporting Requirements
- PSIP Smoke Tester Training Requirements
Lower Opacity Limit
Lower Opacity Limit

- 2007+ MY and DPF Equipped Engines
  - 5% Opacity Limit
  - Vehicles with properly functioning DPFs measure at near-zero opacity levels

- Non-DPF Equipped Vehicles
  - 20% Opacity Limit: 1997-2006 MY Engines
  - 30% Opacity Limit: 1991-1996 MY Engines
  - 40% Opacity Limit: Pre-1991 MY Engines

- Project greater than 90% of in-use vehicles currently meet the proposed opacity limits
Proposed PSIP Reporting Requirements
Proposed Requirements

• Current Regulation:
  • Owners are required to keep records of their annual PSIP testing for 2 years.
  • Owners must present records upon an audit by CARB

• Proposed Changes:
  • Owners would be required to electronically report vehicle information and upload opacity test results to CARB
Required Reporting Data

- Owner Information
  - Name, Address, Contact Info

- Vehicle Information
  - For each vehicle in the fleet:
    - VIN Number
    - License Plate Number
    - Engine MY
    - Engine Family
    - Engine Manufacturer

- Fleets with data in TRUCRS do not have to reenter data

- Annual Opacity Testing Results
  - Enter average opacity values and submit opacity test results through an electronic upload or submission of a photo of the opacity test strip
Database Snapshot Example
Phased in Reporting Requirements

<table>
<thead>
<tr>
<th>Fleet Size</th>
<th>Implementation</th>
<th>Submission Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>50+ Vehicles</td>
<td>CY 2019</td>
<td>April 2020</td>
</tr>
<tr>
<td>20-49 Vehicles</td>
<td>CY 2021</td>
<td>April 2022</td>
</tr>
<tr>
<td>2-19 Vehicles</td>
<td>CY 2023</td>
<td>April 2024</td>
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</tbody>
</table>

- Updated vehicle information and opacity data must be submitted by April of the following calendar year.
- Fleets still required to keep testing records for 2 years.
- **Voluntary Fleet Option:**
  - Fleets can report OBD data on vehicles with 2013+ MY engines in lieu of performing opacity testing on those vehicles.
PSIP Smoke Tester
Training Requirements
Proposed PSIP Smoke Tester Training Requirements

- Successful completion of a training course on how to properly perform PSIP testing will be required for all smoke testers starting in 2019.

- Contracted/paid smoke testers must successfully complete an in-person hands-on training course.

- In-house smoke testers must successfully complete either a CARB online training course or an in-person training course.
In-Person Training Course Requirements

• Criteria for in-person training courses:
  • Hands-on training on how to properly perform SAE J1667 testing protocol
  • Hands-on training on how to properly calibrate a smoke meter
  • Review of PSIP requirements for fleets and testers
  • Completion of a comprehensive examination on the training material to ensure sufficient knowledge

• Training courses can apply to the Executive Officer to receive CARB approval as an in-person training course
  • Currently, CCDET (ccdet.org) is the only approved in-person training course
Online Training Course

- CARB will develop a short online training course and administer it through its main website

  - Course topics:
    - Proper testing procedure
    - Proper calibration techniques
    - PSIP requirements
Future HD Inspection and Maintenance Program
HD I/M Program Development

- HDVIP/PSIP amendments are first step toward a comprehensive HD I/M program

- Potential concepts for comprehensive HD I/M program:
  - Focus on OBD for 2013+ MY engines
    - Consider remote OBD/telematics
  - Testing requirements for non-OBD vehicles
  - Consider HD repair shop licensing/mechanic competency
  - Program verification elements
Recent Developments: HD I/M Legislation

- Senator Connie Leyva introduced Senate Bill 638 (SB638) in February 2017
  - Would authorize CARB to adopt regulations for a HD I/M program, in consultation with the Bureau of Automotive Repair and the Department of Motor Vehicles
  - Annual DMV registration to be tied to HD I/M compliance
  - Two-year spot bill:
    - Current bill language is placeholder language for revision
    - SB638 not expected to be finalized until late summer 2018

- Ongoing work for program development
  - Public regulatory process will come after/if legislation is passed
HD I/M Research Contract with UC Riverside: CE-CERT

- UC Riverside, Center for Environmental Research and Technology
  - 24 month study, began Summer 2016
  - Evaluate potential test methods for identifying vehicles with broken emission controls
  - Pilot demonstration program includes pre-repair emissions testing, vehicle/engine repairs, and post-repair emissions testing
  - Cost and emissions benefits analysis to calculate cost-effectiveness of pilot demonstration program
CARB Contact Information

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Further Information

• Preventative Maintenance Handbook
  • http://ccdet.org/resources/

• Webpage on HDVIP/PSIP and HD I/M program regulatory development:
  • http://www.arb.ca.gov/msprog/hdim/hdim.htm

• Join our list serve:
  • http://www.arb.ca.gov/listserv/listserv.php
    (Choose mobile source related, Heavy-Duty Vehicle Inspection and Maintenance)

• Questions and comments during webcast:
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