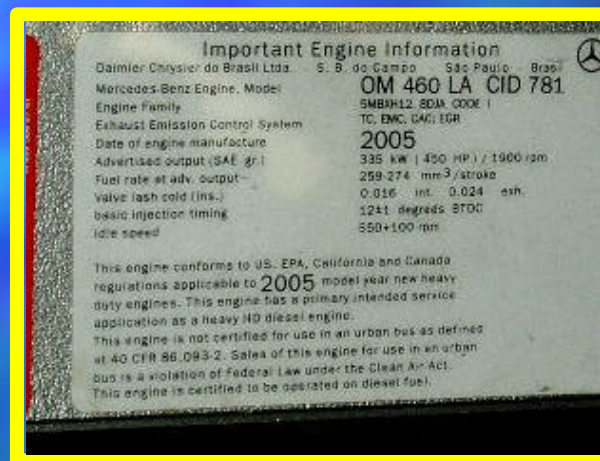


Public Hearing To Consider Amendments to the Heavy-Duty Vehicle Smoke Inspection Program (Implementation of Assembly Bill 1009)



January 26, 2006
Sacramento, California



Overview

- Background
- Existing U.S. Standards for Heavy-Duty Engines
- AB 1009 Proposed Regulatory Amendments
- Summary and Recommendation



Health Impacts of Diesel Exhaust

Exhaust Constituent

Particulates

NO_x & HC

(Ozone Precursors)

Health Impact

Premature Deaths

Cancer

Respiratory Disease

Respiratory Disease



AB 1009 (Pavley)

Restricts heavy-duty vehicle emission in California to vehicles designed to meet U.S. standards

- Engine must meet U.S. emission standards
- Requires owners to carry proof of compliance

Applies to Heavy-Duty Commercial Vehicles (HDCVs) >10,000 pounds used on California roads

ARB/CHP required to develop inspection protocols to ensure compliance



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Which Vehicles Meet AB1009 Requirements?

- U.S. Standards in place since 1974
- Canadian vehicles
 - Canada has relied on U.S. standards since 1974
 - All Canadian vehicles meet U.S. standards
- Mexican vehicles
 - Mexican standards were aligned with U.S. for 1993-2003 model years
 - Prior to 1993 and after 2003 Mexican standards were less stringent



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Summary of Engines Meeting U.S. Standards

| <u>Country</u> | <u>Pre-1974</u> | <u>1974- 1992</u> | <u>1993- 2003</u> | <u>2004+</u> |
|----------------|-----------------|-----------------------|-----------------------|---------------|
| Canada | Compliant | Compliant | Compliant | Compliant |
| Mexico | Compliant | Non-Compliant | Compliant | Non-Compliant |



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Heavy-Duty Commercial Vehicle Survey

- Survey of 765 heavy-duty commercial vehicles (HDCVs) at locations in Southern California
- Approximately 1% of the HDCVs were equipped with non-U.S. certified engines
 - Percentage may increase with implementation of NAFTA
- About 30% of the HDCVs surveyed were missing the emission control label



Regulatory Proposal

- Determine if the engine meets U.S. standards
 - Inspect label of 1974 and later vehicles
 - Included as part of existing smoke inspections
- Operation of engines that do not meet U.S. standards will be fined
- Missing engine labels must be replaced
 - Provides evidence of meeting U.S. standards
 - Allows efficient inspections



Penalties

Engines not meeting U.S. standards will be issued a \$500 civil penalty

A \$300 civil penalty for missing engine labels

- Penalty waived during the first year of implementation if label is replaced within 45 days





Cost of Compliance

- Estimated replacement costs of non-U.S. EPA compliant trucks (1% of fleet)
 - \$1,500/vehicle for pre-1993 HDCVs
 - \$4,500/vehicle for 2004+ HDCVs
- Estimated replacement costs of missing labels at \$100/label (30% of fleet)
- Total estimated compliance cost \$20 million



Estimated Emissions Benefits

| Location | NOx (tpd) | PM (tpd) |
|--------------------------|-----------|----------|
| Statewide | 2.9 | 0.12 |
| South Coast Air Basin | 1.1 | 0.04 |

Estimated benefits for calendar year 2006 using California EMFAC2002 and U.S. EPA MOBILE5-MX emission model

tpd = tons per day



Cost Effectiveness

- \$10.62/pound NO_x and PM for pre-1993 HDCVs
- \$1.09/pound NO_x and PM for 2004+ HDCVs



Implementing the Pavley Requirements

- Add “label” inspection to existing smoke inspection program.
 - 11 inspection teams performing 17,000 inspections annually
 - Inspections performed at CHP inspection facilities, border crossings, random roadside locations, and fleet facilities
- Staff will continue outreach efforts to provide compliance assistance



Summary and Recommendation

- Staff's proposal will establish a cost-effective inspection process in compliance with AB 1009
- Prevents excess emissions from engines not designed to meet U.S. standards
- Staff recommends Board adoption of the proposed amendments