Regulation for On-Road Heavy-Duty Trucks Operating at California’s Ports (Port Trucks)

Maritime Air Quality Technical Working Group Meeting
September 12, 2006

California Environmental Protection Agency

Air Resources Board

Background

♦ Trucks
  – Older/Dirtier
  – Driver Economics
♦ Operating Chain
  – Owner/Operator
  – Primary Motor Carrier
  – Shipping Company
♦ Travels Locally
  – Rail
  – Distribution Facilities
  – Near Densely Populated Areas
Port Information

♦ Health Risk
  – Greater than 10 in a Million

♦ Emission Inventory
  – Statewide Emissions – Goods Movement
    • Diesel PM ~ 50 tons per day (TPD)
    • NOx ~ 1,100 TPD
  – Port Truck Emissions
    • Diesel PM ~ 1.6 TPD
    • NOx ~ 19 TPD

Port Information – Cont.

♦ Annual Container Volume for Ports of Oakland, Long Beach and Los Angeles

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<th>2005</th>
<th>2020 (Estimated)</th>
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<td>9 Million</td>
<td>23 Million</td>
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Port Information – Cont.

Port Trucks
- Population* ~12,000
- Age Distribution – Older than avg.

* Caltrans and Ports 2002 Data

ARB’s Port Truck Report

Goals/Objectives – 3 Initial Strategies

Strategy 1:
- Replace pre-1994 Trucks
- Install DPFs
- Low Cost
- Low NOx Reductions

Strategy 2:
- Replace pre-2003 Trucks
- Install DPFs
- High Cost
- High NOx Reductions
**Strategy 3:**
- Replace the oldest trucks and install controls on the rest.
- Establish emission criteria for trucks entering port service.
- Beginning 2017 and by 2019, trucks will further reduce emissions by meeting 2010 engine standards.
- Evaluate potential incentives.

**Potential Diesel Emission Control Strategies:**
- Diesel Particulate Filters:
  - Passive
  - Active
- NOx Catalyst
- Fuel-borne Catalyst
- Flow-through Filters

**Technology Neutral**
ARB’s Port Truck Report – Cont.

Estimated Strategy 3 Emission Reductions

NOx

PM

Concerns

- Owner/Operator Dynamics
  - Economics
  - Funding
  - Fleet Fluidity
  - Outreach
- Additional Data Needed
  - Fleet Population/Age
  - Operating Dynamics
- Implementation
- Enforcement
- Replacement Truck Availability
- Fleet/Container Growth/Infrastructure
Board Date / Contacts

- **Board Date – Late 2007**

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**Web Site:**

http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm