Reducing Emissions from On-Road Heavy-Duty Diesel Trucks Dedicated to Goods Movement at California Ports

Public Workgroup Meeting
November 13, 2006
Agenda

- Introductions
- Overview of Goods Movement Plan/ Goals
- Overview of Initial Port Truck Strategy
  - Relationship to Private Fleet Rule
- San Pedro CAAP/ Truck Replacement Programs
- On-Road Vehicles Control Measure
- Comments - ARB Draft Report
- Regulatory Timeline
- Contact Information
- Open Discussion
Background

- ARB Emission Reduction Plan for Ports and Goods Movement in California

- Emission Sources:
  - Ships
  - Locomotives
  - Harbor Craft
  - Cargo Handling Equipment
  - Heavy Duty Diesel Trucks
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

<table>
<thead>
<tr>
<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
** 2002 Ports report
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 entire fleet.
- 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
ARB’s Port Truck Report (cont.)

- Retrofit Technologies
  - Verification of Diesel Emission Control Strategies

- Hardware Diesel Emission Control Strategies:
  - Diesel Particulate Filters:
    - Passive
    - Active
  - NOx Catalyst
  - Fuel Borne Catalyst
  - Flow through Filters
San Pedro CAAP & Truck Replacement Programs

- San Pedro Clean Air Action Plan
- Gateway Cites
  ~ 400 Trucks Replaced
- Port of Oakland
  ~ 15 Trucks Replaced
On-Road Vehicles
Control Measure

- Will effect all heavy duty diesel vehicles with GVWR greater than 14,000 lbs.

- Board Consideration - Mid 2007

- Website:
  http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm
Comments - ARB Draft Report

- Truck Owners Economics
- Funding
- Accurate Data
  - Additional Research
- Why Two Plans
- Implementation
- Enforcement
Comments – ARB Draft Report
(cont.)

- Fleet Fluidity
- Outreach
- Replacement Truck Availability
- Fleet/Container Growth/Infrastructure
- Legal Authority
Regulatory Timelines:
- Starting 2006: Outreach with stakeholders
- Fall 2007: Board consideration

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