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

Public Workgroup Meeting
November 13, 2006
Goods Movement Plan

-The Need

- Community health and environmental justice
- ARB’s Diesel Risk Reduction Plan
- Air quality plans (SIPs)
Goods Movement Plan Cont.

- Reduce Emissions From:
  - Heavy duty diesel trucks
  - Locomotives
  - Ships
  - Harbor craft
  - Cargo handling equipment
Starting Point
Initial Port Truck Strategy

- 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 Two Truck Measures

Private Fleet Measure

2007

Port Truck Measure

November 2007
Regulatory Timeline

- Research – Ongoing
- Outreach with Stakeholders – Ongoing
- Public Meetings – Started August 2006
- Regulation Development Workgroups – Ongoing
- Staff Report Including Draft Regulation – September 2007
- Board Consideration – November 2007
Workgroup Goals

- Goals
  - Define ‘Port’
  - Define ‘Port Truck’
  - Identify action items

- All Input Invited

- Set Future Meeting
Questions / Comments
‘Port’ and ‘Port Trucks’
Definition

California Environmental Protection Agency
Air Resources Board
Criteria

- ‘Port’
  - TEU volume

- ‘Port Truck’
  - Number of trips to the port
  - Age distribution of the trucks
# 2005 TEU Volume California Ports

<table>
<thead>
<tr>
<th>Port</th>
<th>TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Beach</td>
<td>3,807,373</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>5,191,339</td>
</tr>
<tr>
<td>Oakland</td>
<td>1,389,807</td>
</tr>
<tr>
<td>Other</td>
<td>91,879</td>
</tr>
<tr>
<td>Total</td>
<td>10,480,398</td>
</tr>
</tbody>
</table>

- **POLA 50%**
- **POLB 36%**
- **Oakland 13%**
- **Other <1%**
Port Truck Population

- **ARB’s Port Truck Report ~ 12,000 trucks**
  - Caltrans data
  - Ports of Los Angeles, Long Beach and Oakland

- **2005 Ports of Los Angeles and Long Beach Data**
  - 7 terminals,
  - ~ 740,000 data points

- **2006 Port of Oakland Data**
  - ~ 3,000 data points
ARB Preliminary Analyses of Ports of Los Angeles and Long Beach Data

- 15,700 unique license plates
- 37 day period is sufficient to represent entire year
- Most trucks visiting one terminal also visit other terminals
Port Truck Population
Los Angeles / Long Beach

- Number of trucks servicing ports
  - ~ 6,000 - 7,000 trucks visit ports at least once a day
  - ARB estimates ~ 1,000 trucks visit ports three times per week
  - POLB/POLA estimates ~ 9,000 trucks visit ports three times per week
Port Truck Population
Oakland

- ARB preliminary analyses of Port of Oakland Data

- Two categories of port truck drivers:
  - Multiple short trips (up to 8 per day)
  - 2-3 longer trips per day
### Port Truck Age Distribution

**Los Angeles / Long Beach**

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Population Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-1994</td>
<td>37</td>
</tr>
<tr>
<td>1994 - 1997</td>
<td>38</td>
</tr>
<tr>
<td>1998 - 2002</td>
<td>22</td>
</tr>
<tr>
<td>2003 - 2006</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

![Graph showing Port Truck Age Distribution]

- **Legend**:
  - Frequent Callers
  - Semi Frequent Callers
  - Non Frequent Callers
  - Overall
### Port Truck Age Distribution

**Oakland**

<table>
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<th>Model Year</th>
<th>Population Percentage</th>
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<tr>
<td>Pre-1994</td>
<td>14</td>
</tr>
<tr>
<td>1994-1997</td>
<td>48</td>
</tr>
<tr>
<td>1998–2002</td>
<td>37</td>
</tr>
<tr>
<td>2003-2006</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

![Model Year Distribution Graph](image-url)
Conclusion / Discussion

- ‘PORTS’
  - Only regulate ports of Los Angeles, Long Beach and Oakland
  - >99% of Statewide TEU volume
  - Trucks servicing other ports will fall under private fleet regulation

- ‘PORT TRUCKS’
  - Assuming minimum 1 trip to the port per day
    - ~ 7,000 trucks for ports of LA and LB
    - ~ 2,000 trucks for port of Oakland
Conclusion / Discussion Cont.

- ‘PORT TRUCKS’ CONT.
  - Estimated number of trucks affected by regulation ~9,000
    - ~3,000 trucks replaced and retrofitted
    - ~6,000 trucks retrofitted
  - Age distribution differs between ports
    - Oakland trucks slightly newer
Questions / Comments
‘Port’ and ‘Port Trucks’
Definition
Action Items

Future Meetings/ Contact Info

- Action Items

- Future Public Workgroup Meeting:
  - December 2006, Southern Calif.

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