

California Air Resources Board



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



2005	2020 (Estimated)
9 Million	23 Million

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

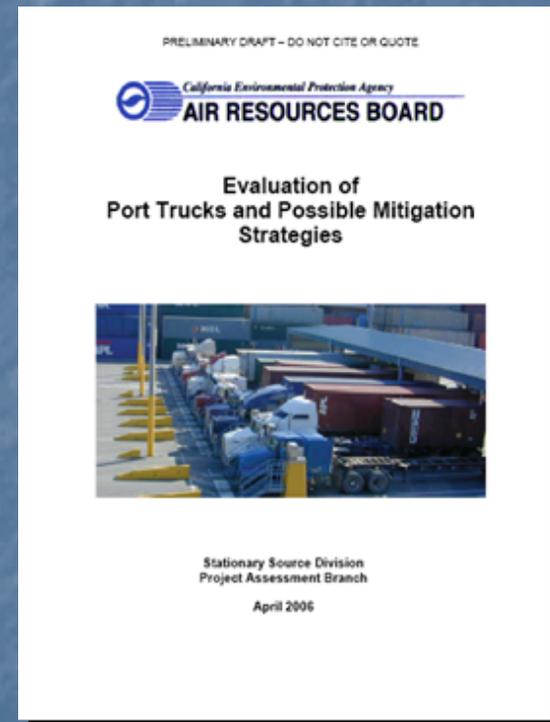
■ Goals/Objectives – 3 Initial Strategies

■ 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



ARB's Port Truck Report (cont.)

■ 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.)

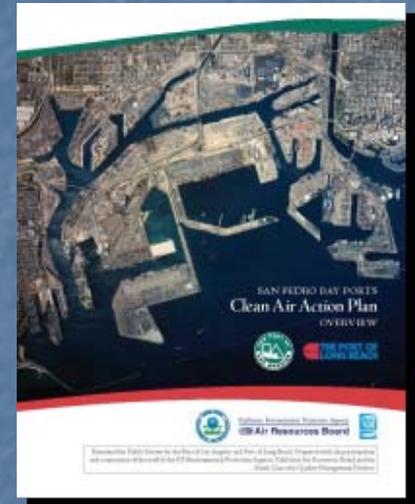
- **Retrofit Technologies**
 - **Verification of Diesel Emission Control Strategies**

 - **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 Cities
 - ~ 400 Trucks Replaced
- Port of Oakland
 - ~ 15 Trucks Replaced



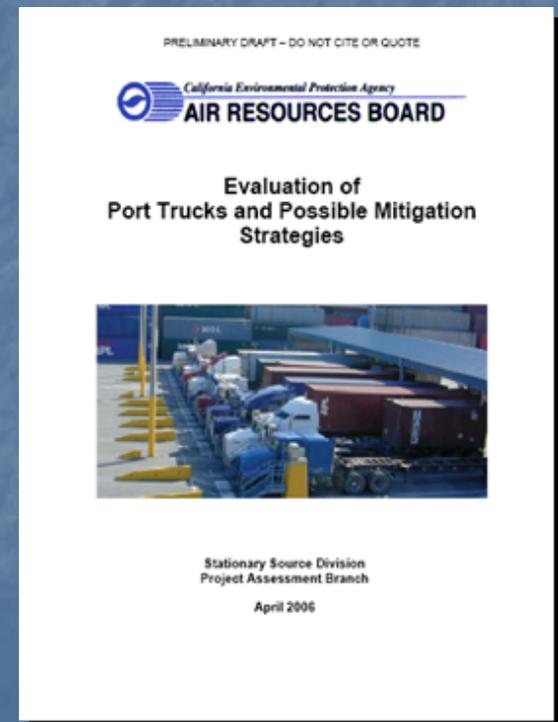
On-Road Vehicles Control Measure

- 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

Contact Information:

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Website:

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

Questions / Comments

