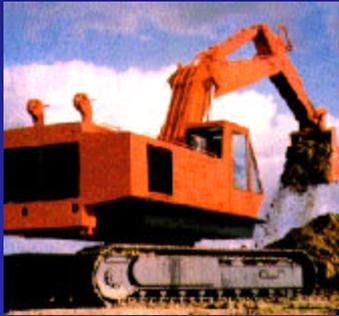


Carl Moyer Program Update



January 20, 2005

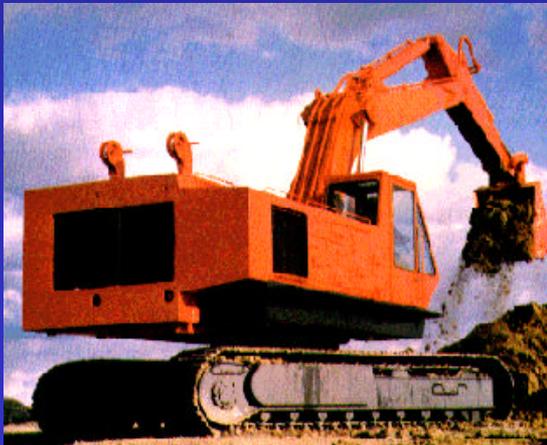
Mobile Source Control Division

California Air Resources Board
California Environmental Protection Agency

The Diesel Engine Dilemma

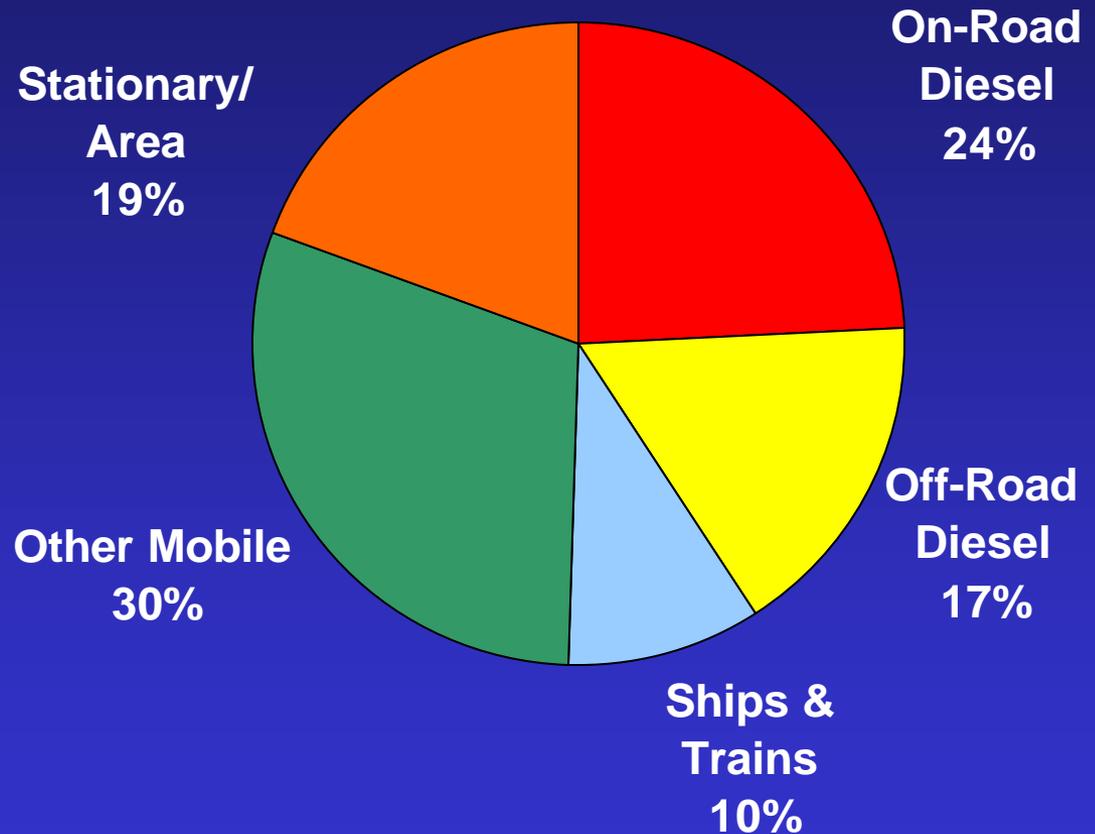


- ◆ Durable and fuel efficient
- ◆ Choice for goods transport
- ◆ Used in most off-road construction and agricultural equipment
- ◆ Big source of air pollution emissions



Diesel Engine Emissions

- ◆ Diesel-powered mobile sources produce over **half** of smog-forming nitrogen oxide emissions



Diesel Health Effects

- ◆ Diesel NO_x and ROG contribute to ozone and PM formation
- ◆ Diesel PM is a toxic air contaminant
 - Increases premature deaths, hospital admissions, respiratory diseases
 - Causes cancer

Health Impacts of Diesels in California

- ◆ Annual health impacts
 - 2,900 premature deaths
 - 3,600 hospital admissions
 - 240,000 asthma attacks/respiratory symptoms
 - 600,000 lost days of work
- ◆ By comparison
 - 3,700 deaths from car accidents
 - 2,000 homicides

Reducing Risk from Diesel

- ◆ Standards for new engines
- ◆ In-use fleet standards
- ◆ Incentives to fill regulatory gaps with early or extra reductions



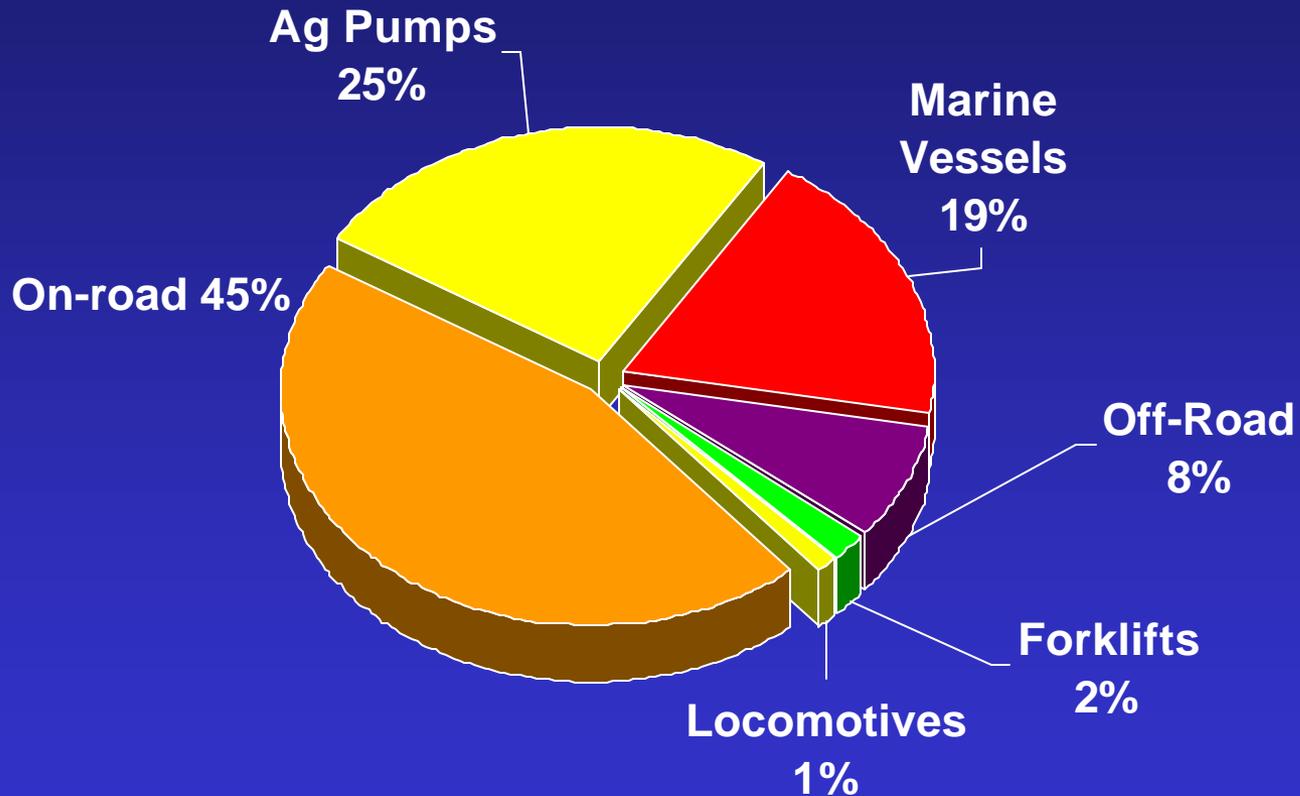
Carl Moyer Program – Core Principles

- ◆ A state and local partnership
 - ARB sets guidelines
 - Local districts receive applications, make grants, and monitor projects
 - District match funding: grants for Moyer-eligible projects, infrastructure, alternative diesel fuels
- ◆ Emission reductions must be real, quantifiable, surplus, and enforceable
- ◆ Environmental justice funding requirement

Carl Moyer Program – Years 1-6

- ◆ Incentive grants to reduce NOx from heavy-duty diesel vehicles and equipment
 - 1994 Ozone SIP
 - Trucks, off-road construction equipment, marine vessels, ag pumps, etc.

Funding by Project Type*



*Preliminary estimate for Years 1-6

Carl Moyer Program – Years 1-6

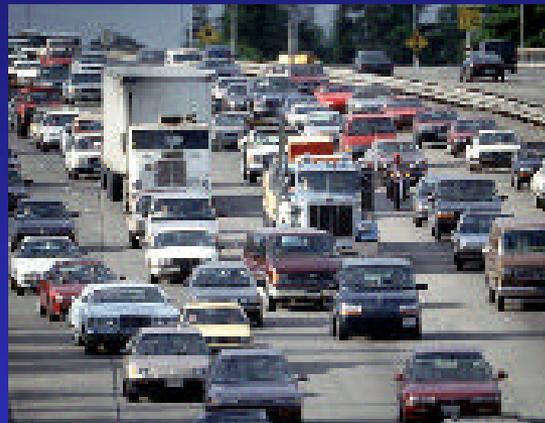
- ◆ Advisory Board recommendations
 - Increase funding to \$100 million per year for 5 years
 - Target PM reductions
- ◆ On-going success led to annual appropriations
 - \$154 million total funding
 - Engine projects funded – 7,000 (est.)

Carl Moyer Program – Years 1-6

- ◆ Estimated emission reductions through Year 6
 - NO_x: 18 tons per day
 - PM: 1 ton per day
- ◆ Cost-effectiveness: \$3,000 per ton of NO_x reduced

Carl Moyer Program – Year 7

A New Era Begins



New Legislation

- ◆ SB 1107 (FY04-05 budget)
 - Established a continued source of funding: \$61 million from adjustment to Smog Check fees
- ◆ AB 923 (Firebaugh/Pavley)
 - Provided \$80 million from additional funding sources: tire fees and increase in DMV fees
 - Adds PM & ROG as covered pollutants
 - Requires revised cost-effectiveness calculations

New Legislation (continued)

- ◆ AB 923 (Firebaugh/Pavley) cont.
 - Adds light-duty projects (e.g., car scrap)
 - Adds new agricultural sources (potentially including non-engine sources)
 - Includes new funding allocation formula
- ◆ AB 1394 (Levine/Montanez)
 - Heavy-duty fleet modernization (heavy-duty scrap)

On-going Incentive Funding

- ◆ FY 04/05 (year 7) ~ \$30.5 million
- ◆ FY 05/06 (year 8 & subsequent years)
 - Air Resources Board: ~ \$86 million for Moyer
 - \$61 million from Smog Check fees
 - \$25 million from tire fees (reduced to \$16 million starting in 2007)
 - Air Districts: up to \$55 million
 - Local Boards may approve \$2 increase in DMV
 - Funds for Moyer projects, Low-Emission School Buses, light-duty scrap, and Agricultural Assistance Program

Interim Implementation of AB923

- ◆ Published Program Advisories
 - NO_x, ROG, and PM cost-effectiveness and project life
 - Motor vehicle fees
 - Light-duty vehicle scrap
- ◆ Defer projects for new sources until Board adopts funding protocols
 - New agricultural sources
 - Fleet modernization

Impact on Agricultural Sources



- ◆ Moyer grants allowed for agricultural projects with approved funding protocols
 - Irrigation pumps
 - Mobile ag equipment (e.g., tractors)
- ◆ Develop protocols for non-engine categories
 - Confined animal facilities (e.g., dairies)



Impact on Agricultural Sources

◆ New Agricultural Assistance Program (AAP)

- Funds for 3 years after rule adoption or until compliance date, whichever is later
- Previously unregulated sources
- Cost-effectiveness: \$13,600 per ton
 - Includes non-surplus reductions
 - Calculated using Moyer methods



10% Holdback – Multi-District Projects



- ◆ Statewide priorities
 - Goods movement
 - Ports
 - Locomotives
 - Truck retrofits
 - Large off-road equipment
- ◆ Request proposals: early 2005

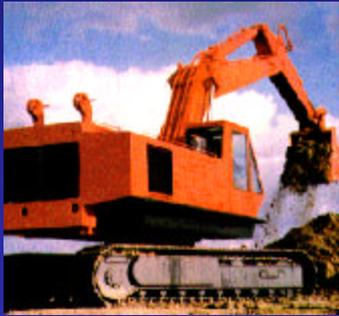
Action Plan

- ◆ Workshops in late 2004
- ◆ Year 7 funds available – Jan 1, 2005
- ◆ Published Program Advisories – Jan 1, 2005
- ◆ Release RFP for multi-district projects –
March 2005
- ◆ Workshops on guidelines –
March and June 2005
- ◆ Proposed guidelines to Board –
November 2005

Recommendations

- ◆ Approve ARB's use of 10 percent of funds for multi-district projects
- ◆ Approve the Moyer Action Plan to implement new legislative requirements and develop revised Carl Moyer Program Guidelines

Carl Moyer Program Update



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