



WEST COAST COLLABORATIVE
A public-private partnership to reduce diesel emissions





Diesel emissions pose a significant environmental health problem

» Diesel exhaust

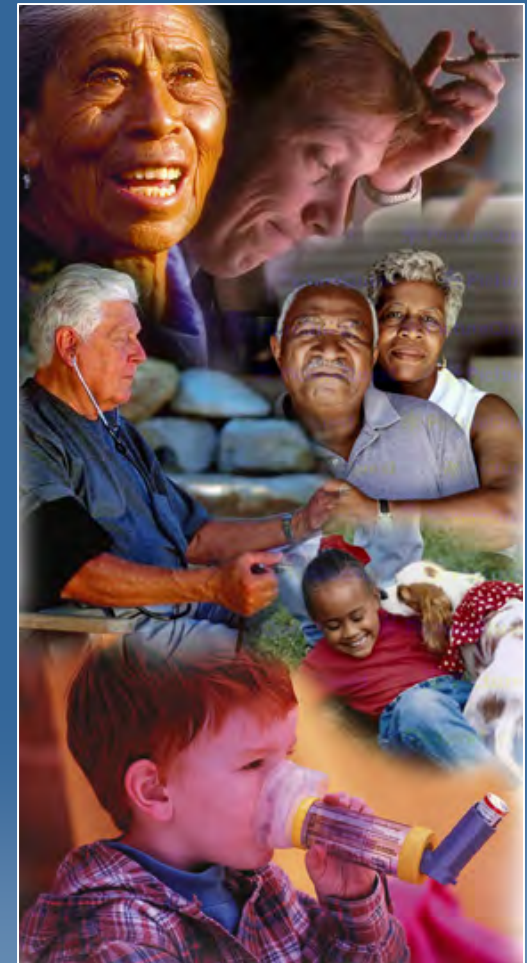
- › Serious health impacts
 - exacerbates asthma, respiratory and cardiac illness
- › Possible human carcinogen
 - over 70% of the cancer risk from all air toxics
- › Degrades air quality
 - Particulate Matter
 - Ozone
- › Contributes to climate change



Paul Bubbosh (EPA OTAQ), Deborah Jordan (EPA R9), and Michael Antonovich (LA County Supervisor and AQMD Board Member) announce a Smartway project to reduce diesel emissions with children from Horace Mann elementary school in Los Angeles on September 30, 2004.

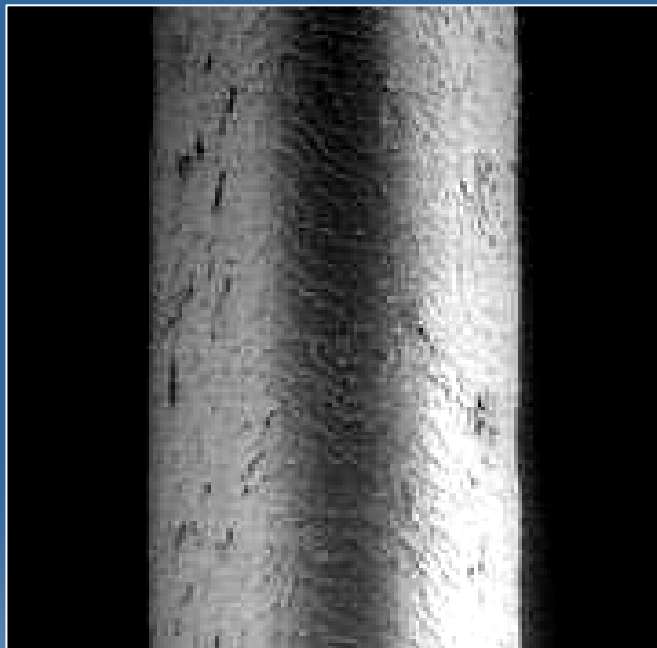
Some Groups Are More at Risk

- » People with heart or lung disease
 - › Conditions make them vulnerable
- » Older adults
 - › Greater prevalence of heart and lung disease
- » Children
 - › More likely to be active
 - › Bodies still developing
 - › Breathe more per body pound

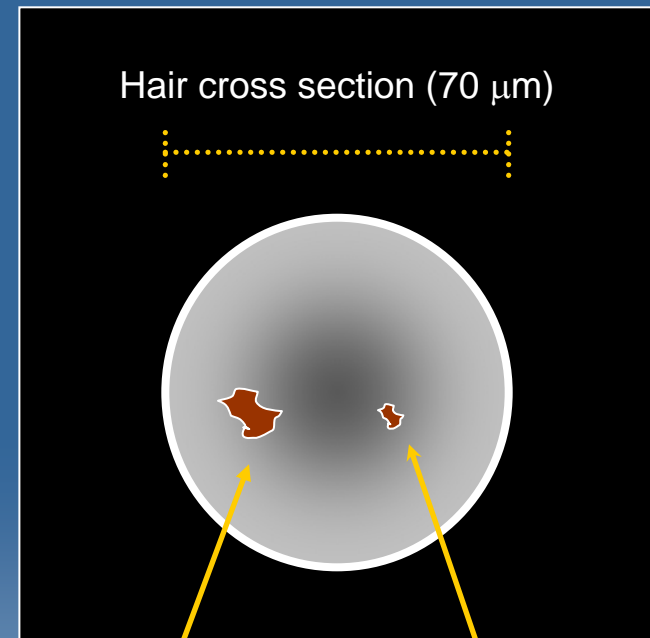


Particulate matter (PM) in diesel exhaust is the driver of risk

- › Mix of particles and liquid droplets
- › Considerably smaller in size than human hair
- › Penetrates deeply into the lungs



Human Hair (70 μm diameter)



PM₁₀ (10 μm)

PM_{2.5} (2.5 μm)

EPA Regulations

Regulatory Standards:

Clean Diesel Truck and Bus Rule: Dec 2000

Clean Air Nonroad Diesel Rule: May 2004

Locomotives and Marine Rule: March 2008

Cleaner diesel fuel requirements:

ULSD for highway diesel engines started in 2006

Low sulfur diesel for nonroad diesel engines in 2007,

ULSD for nonroad diesel engines in 2010, and

ULSD for locomotives and marine engines in 2012.

EPA Regulations – engine standards

- » Engine standard requirement
 - › Highway sector in 2007
 - › Construction and other non-road in 2011
 - › Locomotive and marine engine in 2008/2009
- » Fuel and engine standards for large commercial marine diesel vessels like cruise and container ships are anticipated



EPA Regulations

- » When fully implemented in 2030, these regulations will annually prevent up to:
 - 12,000 premature deaths,
 - one million lost work days,
 - 15,000 heart attacks and
 - 6,000 children's asthma-related emergency room visits

- » Combined, these stringent regulations will achieve \$150 billion in health benefits

- » But what can be done with the 11 million engines in use today?



National Clean Diesel Campaign

» EPA's National Clean Diesel Campaign was launched in 2005 to build on the success of its voluntary programs



National Clean Diesel Campaign

- › **Clean School Bus USA Program**
 - Over \$30 million granted since 2003
- › **SmartWay Transport Partnership**
 - \$7 million granted since 2001
- › **Voluntary Retrofit & Replacement Program**
 - Over \$5 million granted since 2000





National Program Developments

- » Now 7 Collaboratives
- » Increased importance of tracking and reporting
- » Greater interest and expectations from decision makers



As part of EPA's national program, the Collaborative seeks to do even more

- » The goal of the Collaborative is to reduce diesel emissions in the most impacted communities by:
 - › Supporting and bringing attention to the many highly successful existing efforts
 - › Creating a forum for information sharing along major transportation corridors in the West
 - › Leveraging significant new resources
 - › Implementing emissions reduction projects



Marcus Peacock (EPA Deputy Administrator) and Wayne Nasti (EPA R9 Administrator) present \$300,000 award to Port of Long Beach for Hybrid Yard Hostler Project on September 6, 2006

West Coast Collaborative Goals

» ***Protect/Improve Public Health by:***

- › Helping to meet National Ambient Air Quality Standards (PM2.5, Ozone)
- › Meeting air toxics goals (both federal and state/local partners)

» ***Support Energy Security and Greenhouse Gas Reductions by:***

- › Using cleaner fuels (biodiesel, biogas/natural gas, electric) relative to total diesel fuel
- › Utilizing SmartWay and other programs to virtually eliminate on-road, locomotive and, where appropriate, non-road idling
- › Facilitating the development of renewable/alternative fuels and efficiency strategies that are cost effective and support economic development in the West

The West Coast Collaborative includes public, private, and non-profit partners

- » USEPA, USDOE, USDOT, USDA, HUD and DOD
- » State and local leadership in CA, NV, AZ, ID, WA, OR, HI, and AK
- » Environment Canada and Mexico SEMARNAT
- » Private and non-profit sector partners
- » Over 1,000 participants



Hawai'i Clean Diesel Press event, June 24, 2008.

Six workgroups address different industry sectors



Steven Johnson (EPA Administrator) and Elin Miller (EPA Regional Administrator) announce a \$250,000 grant to King County to implement the Northwest Hybrid Truck Consortium Project.

Marine Vessels and Ports

Trucking

Locomotives and Rail

Construction and
Distributed Generation

Agriculture and Biofuels

Public Fleets

Accomplishments demonstrate the effectiveness of Collaboration



- » \$14 million in EPA funding has leveraged over \$40 million from our partners to implement
 - › 96 projects
 - 65 Collaborative projects (\$7.3 million); and
 - 31 Clean School Bus USA projects (\$7 million)
 - 2 grants in Hawai'i

Collaborative Accomplishments in Hawai'i

- » This is the third meeting with partners in Hawai'i
- » 2 successful grant projects
- » Major supplemental environmental project focusing on diesel retrofits
- » Building strong partnerships with state and local government, private sector, and nonprofits
- » Future activities under DERA State Clean Diesel Program



Hawai'i Clean Diesel Press Event, June 24, 2008.

... But more can be done

- » The Collaborative enhances state and local efforts to improve the health and economy of the West
 - › Every dollar spent creates up to \$13 in health benefits
 - › Investments in new technologies lead to economic development opportunities



Closed crankcase ventilation system on a Grace Pacific truck.

For more information on the West Coast Collaborative...

» Visit our Web site:
www.westcoastcollaborative.org

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EPA Administrator Stephen Johnson and Regional Administrator Wayne Nastro present \$211,000 to Sacramento Metropolitan Board Member Roger Dickinson and Air Pollution Control Officer Larry Greene to retrofit construction equipment engines in and around Sacramento on August 22, 2005.