

National Clean Diesel Campaign



Innovations Conference
August 2005



Diesel Engines & Emissions

- Reducing emissions from diesel engines is one of the most important air quality challenges facing the country
- Even with more stringent standards set to take effect in the next decade, over the next 20 years, millions of in-use engines will continue to emit large amounts of pollution
- This pollution will continue to contribute to numerous instances of premature mortality, asthma attacks, lost work days and many other health impacts



Preface to the Clean Diesel Campaign

- EPA has taken aggressive action to set stringent standards for new diesel engines and initiated voluntary measures to reduce emissions from the existing fleet
- Given the importance of controlling diesel emissions in a comprehensive integrated way, to protect health and to allow nonattainment areas to meet the NAAQS, EPA has consolidated diesel clean-up efforts under the National Clean Diesel Campaign (NCDC)



Clean Diesel Campaign – Two Components

- **Regulations for new engines**
 - Heavy-Duty Highway
 - Nonroad
 - Light-duty Tier 2
 - Upcoming standards for Marine/Locomotives
 - Future Sulfur Emission Control Area & International Maritime Organization/Ships

- **Voluntary Programs to address existing diesel fleet**
 - Voluntary Diesel Retrofit Program
 - Demonstration projects involving: diesel exhaust catalysts, particulate filters, engine modifications, cleaner fuels, idle reduction
 - Technology & project evaluation, Communications & Outreach
 - SmartWay Transport
 - Idle reduction, tires, logistics, lubricants, aerodynamics, speed management, reflash
 - Communications & Outreach

Regulatory Strategy

Standards for NEW diesels

Diesel engines in all mobile source applications --

- *Regulations adopted; now focused on implementation:*



Heavy-duty trucks & buses



Nonroad machines



Light-duty vehicles

- *Rulemakings underway for:*



Locomotives



Marine vessels



Ocean-going ships

- **Current Regulations**
 - Very large public health and environmental benefits will result:
 - By 2030, PM reduced by ~250,000 tons/year, NO_x by ~4 million tons/year
 - Annual benefits expected to exceed \$150 billion versus costs of approximately \$7 billion
- **15 ppm sulfur cap gets immediate PM and SO_x reductions from existing fleet of diesels**
 - Highway (2006)
 - Nonroad (500 ppm in 2007, 15 ppm in 2010)
 - Locomotive and marine (500 ppm in 2007, 15 ppm in 2012)



Voluntary Program Strategy

Goal: By 2014 reduce emissions from the over 11 million engines in the legacy fleet

- Five sectors targeted:
 - School buses
 - Ports
 - Construction
 - Freight
 - Agriculture
- These five sectors were chosen based on the following factors:
 - Public health impacts – Sensitive populations
 - Mobile source inventory
 - Cost effective strategies are available
 - Opportunities exist because of port expansion & major road construction
 - Strong support from our entire stakeholder community



Voluntary Program Successes

- Building on the success of our programs, there are:
 - Significant resources leveraged from partners in the programs
 - Leveraged federal funds by over 2:1
 - States have established programs with funding > \$400 M
 - Approx 220 cleaner diesel projects nationwide
 - 44 states (and DC) have projects
 - Tens of thousands of engines are being retrofitted with innovative technologies and fuels
 - Over 500 partners are participating in our programs
 - 20 states (and DC) are using ULSD well-ahead of EPA's mandate
 - 17 innovative emission technologies have been verified (more on the way)
 - As a result of Clean School Bus USA Program:
 - Over 2 million children ride to school in cleaner buses each day
 - Approx 20,000 buses are included in the program
 - 150 school districts are participating
 - As a result of the SmartWay Transport Program:
 - 52 Idle control projects have been established along major interstate corridors (I-95, I-40, I-5, I-35, I-10, I-85)
 - 115 shipping and trucking companies totaling nearly 250,000 trucks

Sector-based Strategies



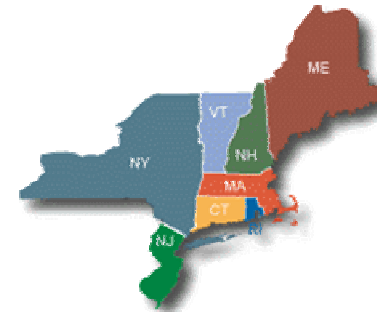
- **Clean School Bus USA**
 - Modernize 100% of the nation's school bus fleet by 2010
- **Clean Ports USA**
 - Encourages port authorities and terminal operators to reduce emissions and provide economic incentives to operate more efficiently
- **Clean Construction USA**
 - Encourages reducing emissions from major construction projects in non-attainment areas from public and private projects
- **SmartWay Transport Partnership**
 - Challenges freight companies to improve the environmental performance of their fleets
- **Clean Air Agriculture**
 - Promotes biofuels/renewables & retrofit in farming communities in non-attainment areas in partnership with USDA

Regional Initiatives

- Many localized, regional approaches have been established:
 - West Coast Collaborative
 - Northeast Diesel Collaborative



- Mid-West Clean Diesel Initiative
- Mid-Atlantic Diesel Collaborative



- The primary goal of a Regional strategy 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
 - Leveraging significant new resources
 - Developing and implementing projects



Funding Clean Diesel Projects

- **EPA Funding:**

- **2004 \$5 M CSBUSA grants and \$1.6 M for NCDC grants**
 - Funded 40 projects
 - 22 School Bus fleets
 - 6 Refuse Haulers/Collectors
 - 3 Marine Ports
 - 2 Construction Projects
 - Others including Buses, Fire Trucks, Agriculture, Utility, & Locomotive
- **2005 National Clean Diesel Campaign Grants**
 - \$7.5 M for CSBUSA projects
 - \$950 K for nonroad equipment (ports & construction)
- **2005 SmartWay Transport Partnership**
 - \$5 M for idle reduction projects



Funding Clean Diesel Projects

- **Moving Forward – Future Federal Funding**
 - **FY06 budget request**
 - \$5 Million for National Clean Diesel Campaign
 - \$7 Million for CSBUSA
 - **Transportation Bill**
 - Section 1612 – CMAQ \$ for nonroad retrofit
 - CSBUSA - \$110 M over 2 years with unspecified sums through FY2010
 - **Energy Bill**
 - Diesel Emission Reduction Act (DERA) \$1Billion
 - Fleet Modernization - \$100 M over 3 years
 - CSBUSA – identical to Transportation Bill language



For more information....

National Clean Diesel Campaign Website

www.epa.gov/cleandiesel

Additional Information:

www.epa.gov/otaq/retrofit

www.epa.gov/cleanschoolbus

www.epa.gov/smartway

www.cleanfleetsusa.net