



## WEST COAST COLLABORATIVE

Public-private partnership to reduce diesel emissions

# WEST COAST COLLABORATIVE NEWSLETTER

July/August 2005

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*The goal of the Collaborative is to leverage significant federal funds to reduce emissions from the most polluting diesel sources in the most affected communities. The Collaborative seeks to significantly improve air quality and public health by targeting the highest polluting engines with the most cost effective control strategies. The Collaborative is one of the first pilot projects of the National Clean Diesel Campaign.*

The West Coast Collaborative is proud to announce that the EPA has selected sixteen finalists along the West Coast totaling over \$1.4 million in EPA grants and over \$5.8 million in matching funds from Collaborative partners for its Fiscal Year 2005 Request for Proposals. This brings our Collaborative grant total to over \$2.5 million granted and over \$15 million in matching funds over the last 1.5 years. Next year, we will at least double the amount of EPA funds granted under the auspices of the Collaborative.

For more information about all of the grants that EPA has selected for 2005, please visit our website at: <http://www.westcoastcollaborative.org/grants/index.htm>.

## EPA Announces Construction Equipment Retrofit Grant in Sacramento

On August 22, 2005, EPA Administrator Stephen L. Johnson announced the selection of sixteen new grants under the West Coast Collaborative and remarked, "The public-private partnership of the West Coast Collaborative will yield immediate reductions in existing diesel fleet emissions and advance our progress toward cleaner air in our cities, ports and farmland." Along with EPA Regional Administrator Wayne Natri, the Administrator presented the Sacramento Metropolitan Air Quality District (SMAQMD) with a check for \$211,000, which was matched by funds from Cummins West and SMAQMD totaling over \$774,000.

The grant will support efforts to demonstrate the effectiveness of two different types of emissions control devices on

### Did you know?

Diesel exhaust contains 40 chemicals that the State of California has identified as toxic air contaminants.

*Environmental Media Services*

five pieces of construction equipment. These devices are expected to reduce particulate matter (PM) more than 85 percent and will also reduce nitrogen oxide (NOx) up to 25 percent and carbon monoxide (CO) up to 90 percent. The project will enable both technologies to be approved (or verified) under EPA and California's retrofit programs.

Each day in the Sacramento area, diesel engines in construction equipment fill the city's air with nearly 23 tons of NOx emissions and 1.4 tons of particulate matter. These emissions adversely impact the health of the 16.6 percent of Sacramento County residents who are diagnosed with asthma, as well as persons with other respiratory disorders. The construction sector is the single largest source of diesel PM in California, accounting for nearly 30 percent of diesel PM emissions. Diesel exhaust is responsible for 70 percent of California residents' risk of cancer from airborne toxics.

Cal/EPA Secretary Alan Lloyd, SMAQMD Board Member and Chair of the Sacramento County Board of Supervisors Richard Dickinson, American Lung Association of California's Bonnie Holmes-Gen and Cleaire Advanced Emission Controls (Cleaire) President Kevin Shanahan also spoke at the event.

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For more information about the West Coast Collaborative, visit us on the web at [www.westcoastcollaborative.org](http://www.westcoastcollaborative.org).



*EPA Administrator Johnson discusses the need to reduce diesel emissions.*

After the event, guests were invited to tour the Cummins West facilities, where engineers and mechanics answered questions about different technologies. Participants saw two vehicles that were being retrofitted with emissions filters and saw a demonstration of a filter-cleaning machine. In addition, guests toured the collection of school and public transit buses, refrigeration and freight trucks and other diesel equipment from around the state that had been brought to the event as examples of the many types of retrofits and fuels that can be used to reduce diesel emissions.



*(from right to left) EPA Administrator Johnson hands over a big check to SMAQMD Air Pollution Control Officer Greene and Board Member Dickinson as Regional Administrator Nastri looks on.*

## Serious Health Impacts of Diesel Exhaust Have Available Solutions

Emissions from diesel engines found in trucks, ships, locomotives, and agricultural and construction equipment—especially the microscopic soot known as particulate matter—create serious health problems for adults and have extremely harmful effects on children and the elderly. Children are especially adversely affected by diesel emis-

sions because their respiratory systems are still developing, and they have a faster breathing rate. Public health authorities associate exposure to PM with an increased risk of premature death, greater number of hospital admissions for heart and lung disease, and amplified adverse respiratory symptoms such as asthma. Long-term exposure to diesel exhaust may also pose a lung cancer hazard to humans.

According to the California Air Resources Board and the American Lung Association:

- » Premature deaths linked to particulate matter are now at levels comparable to deaths from traffic accidents and second-hand smoke in California.<sup>1</sup>
- » Nationwide, particulate matter from diesel emissions causes 15,000 premature deaths every year.<sup>2</sup>
- » Recent studies of children's health conducted in California have demonstrated that particle pollution may significantly reduce lung function growth in children because particulate matter becomes embedded in the deepest recesses of the lung where it can disrupt cellular processes.<sup>3</sup>

Diesel exhaust also contains nitrogen oxide, which is a precursor to ozone, or "smog." In sufficient doses, ozone increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Recent evidence links the onset of asthma to exposure to elevated ozone levels in exercising children.<sup>4</sup>

Luckily, there are many technologies and practices that could be implemented now that will reduce diesel emissions along the West Coast and nationwide will have significant benefits for public health. EPA estimates that a \$100 million voluntary diesel retrofit program would create \$2 billion in health benefits from reduced premature deaths, hospital visits, and other costs associated with diesel emissions exposure.<sup>5</sup>

### Project Collaborators

The West Coast Collaborative would like to thank all those who provided matching funds and/or partnered with our FY05 grant recipients:

- » American Lung Association of Washington
- » Antelope Valley Air Quality Management District
- » BC Hydro

<sup>1</sup> "Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution," California Air Resources Board and American Lung Association, January 2004, <http://www.arb.ca.gov/research/health/fs/PM-03fs.pdf>.

<sup>2</sup> *ibid*

<sup>3</sup> *ibid*

<sup>4</sup> *ibid*

<sup>5</sup> West Coast Collaborative website: FAQs, <http://www.westcoastcollaborative.org/faq.htm>.



*EPA's Diesel Collaborative team tests out a piece of retrofitted equipment.*

- » Bellingham Technical College
- » Biodiesel Works
- » Bluewater Network
- » Cal State University, Fresno
- » California Air Resources Board
- » City of Fresno, CA
- » City of Lancaster
- » City of Portland, OR
- » County of Sacramento, OR
- » Energy Conservation, Inc.
- » EnSave Energy Performance, Inc.
- » Extengine Transport Systems, LLC
- » Good Company
- » Hunter and Hunter Trucking, Inc.
- » Idaho Department of Environmental Equality
- » Idaho Department of Agriculture
- » John Christner Trucking, Inc.
- » Kalmar Industries
- » Long Beach Container Terminal, Inc.
- » Oregon Bridge Delivery Partners
- » Oregon Department of Energy
- » Oregon Department of Environmental Quality
- » Oregon Department of Transportation Bridge Delivery Unit
- » Pacific Gas and Electric Company
- » Pacific Merchant Shipping Association
- » Port of Everett
- » Port of Long Beach, CA
- » Port of Tacoma
- » Puget Sound Clean Air Agency
- » Puget Sound Energy
- » San Francisco Cruise Terminal, LLC
- » San Francisco Port's Cruise Terminal Environmental Advisory Committee (CTEAC)
- » Shorebank Enterprise
- » Shurepower, LLC
- » Sound Energy Solutions
- » South Coast Air Quality Management District

- » Tehama County APCD
- » US Department of Agriculture
- » Washington Restaurant Association
- » Washington State Ferries
- » Washington Technology Center-NWETC
- » Western States Petroleum Association
- » WestStart-CALSTART

## Important Events in Congress

### Federal Money Appropriated for Diesel Reductions

On August 2, 2005, President Bush signed HR 2361. Though the bill decreased EPA funding from its FY2005 levels, it contained three provisions specific to voluntary diesel emissions reductions. HR 2361 allocated \$5 million for the National Clean Diesel Campaign, of which the Collaborative will get a substantial portion, \$3 million for the Communities Activated for a Renewed Environment (CARE) and \$7 million for the Clean School Bus USA program.

### Riding the Transportation Bill to Funding

On August 9, 2005, President Bush signed the Transportation Equity Act of 2005 into law. Section 1612, an amendment by Senator Hilary Clinton and Senator James Inhofe, makes Congestion Mitigation and Air Quality (CMAQ) money set aside under the Highway Trust Fund Surface Transportation Program available for emission reduction strategies, including nonroad retrofits. Section 1612 also requires the EPA to develop an evaluation and list cost-effective diesel retrofit technologies. Further, the section directs states to prioritize CMAQ money for retrofits and cost-effective strategies to reduce pollution and improve air quality.

The Transportation Bill also contains an authorization for \$55 million per year in FY06 and FY07, with unspecified

#### **Did you know?**

*Diesel exhaust is known to cause inflammation and histopathological changes in the lungs, impaired pulmonary function, exacerbation of allergenic responses to known allergens and asthma-like symptoms, and neuropsychological symptoms such as lightheadedness, nausea, vomiting, and numbness or tingling of the extremities.*

*US EPA IRIS study of toxicological affects*

amounts as necessary in FY08-FY10, for a Clean School Bus Program; and the bill contains language that authorizes the state to use Surface Transportation Program funds for truck stop electrification (TSE).

### Energy for Diesel Emissions Reductions

The Energy Policy Act of 2005 was signed into law on August 8, 2005. The Act authorizes numerous provisions totaling over \$400 million per year in voluntary diesel emissions mitigations funds.

For example, the Act contains a \$200 million/year authorization for five years for grants and loans for diesel emission reductions including engine retrofits. In addition, the Act contains a Diesel Truck and Fleet Modernization Provision authorized at \$20 million for the first year, \$35 million and \$45 million for the next two years and funds as needed for the next two years. This provision requires EPA to establish a program for awarding grants to public agencies and entities for fleet modernization programs including retrofitting technologies.

The Act also authorizes \$110 million for biofuels technology development. The EPA, along with the USDA and Biomass Research and Development Technical Advisory Committee, is authorized to create a program to demonstrate advanced production technologies for alternative transportation fuels. Emphasis is placed on projects that make alternative fuels more accessible in more geographic areas.

In addition to the same \$55 million/year authorization for the Clean School Bus Program, the Act authorizes over \$94 million in grants over three years for the EPA SmartWay Transport Partnership for idle reduction and energy conservation technologies for trucks and over \$45 million over 3 years for locomotives. In the first year, these authorized funds total \$30 million.



*Princess Cruise ship plugs in at the Port of Seattle.*

### **Did you know?**

EPA's regulatory impact analyses for the highway and non-road engine rules illustrate the potential magnitude health benefits of cleaning up diesel engines. Combined, these rules will avoid about 19,000 deaths per year in 2030 amounting to billions of dollars in benefits.

*Clean Air Task Force*

*Please note: An authorization merely creates the authority for an agency to run a program, but does not appropriate actual funds to the program.*

For more information on these pieces of legislation, please visit <http://www.westcoastcollaborative.org/congress.htm>.

### One Year Later—Collaborative Grant with Princess Cruises

Last year, the Collaborative granted the Port of Seattle \$50,000 as part of a much larger investment by the Port and Princess Cruises to allow cruise ships to “plug in” to an electric source of power while docking. On July 23, 2005, two Princess Cruise ships plugged in for the first time. The technology is called cold-ironing.

Juneau is another port that has cold-ironing for cruise ships. On August 14, 2005, US EPA Administrator Stephen Johnson toured this Princess Cruise project. While plugged in at this port, the ships emitted no air pollution. Administrator Johnson lauded the emissions-reducing efforts, noting that “it’s a significant step to help with the air quality.”

For more information related to the Collaborative, including press, available grants, upcoming events and more, please visit our website: [www.westcoastcollaborative.org](http://www.westcoastcollaborative.org).