



WEST COAST COLLABORATIVE

A public-private partnership to reduce diesel emissions

The goal of the West Coast Collaborative is to leverage federal funds to strategically reduce emissions from the most polluting diesel sources in impacted communities. The Collaborative seeks to improve air quality and public health by targeting the highest polluting engines with the most cost effective control strategies.

DERA 2014: Truck & School Bus Replacements in Southern California

The West Coast Collaborative (WCC) is pleased to announce the South Coast Air Quality Management District's (SCAQMD's) completion of a United States Environmental Protection Agency (US EPA) Diesel Emissions Reduction Act (DERA) grant to replace heavy-duty diesel cement trucks and school buses. This project was implemented using \$1,160,056 in DERA grant funding combined with \$18,596,840 in cost-share funds from SCAQMD, the California Air Resources Board (CARB) and participating fleets.

What is the Project?

This project replaced 80 legacy diesel Class 8a cement trucks and seven legacy diesel Type D school buses with new vehicles powered by compressed natural gas (CNG) engines. The replacement cement trucks featured CNG engines certified to CARB's optional low NOx emission standard of 0.02 g/bhp-hr, which is 90% cleaner than the applicable US EPA standard.

Why is this project important?

Exposure to diesel exhaust has been associated with decreased lung function and retarded lung development and can also exacerbate the symptoms of asthma, bronchitis and pneumonia. This project will reduce human exposure to diesel emissions as well as the negative health effects associated with exposure. The partner fleets operate in Los Angeles Orange, Riverside, and San Bernardino Counties. These areas are disproportionately impacted by heavy-duty diesel traffic along the major transport corridors (e.g., I-5, I-10, I-215, CA-60 and CA-101), as well as by goods movement operations at the Ports of Long Beach and Los Angeles and nearby the Burlington Northern Santa Fe and Union Pacific rail yards.

What are the Environmental Benefits?

Over the remaining lifetime of the 87 affected engines, these upgrades are estimated to reduce emissions of oxides of nitrogen (NOx) by 99 tons, fine particulate matter (PM2.5) by 6 tons, hydrocarbons (HC) by 8 tons, carbon monoxide (CO) by 39 tons, and carbon dioxide (CO₂) by 1278 tons. On an annual basis, the associated PM2.5 emissions reductions are estimated to generate nearly \$3 dollars in monetary health benefits in the affected counties for every \$1 spent on the project. Additionally, the reduction of PM2.5 emissions will reduce black carbon, which influences climate by directly absorbing light, reducing the reflectivity ("albedo") of snow and ice through deposition, and interacting with clouds. The project will also conserve over 840,000 gallons of diesel fuel by employing CNG technology.

Who are the Partners on this project?

The project was led by SCAQMD, a regional agency with jurisdiction over air quality in California's South Coast Air Basin, in partnership with CARB's Carl Moyer and Proposition 1B Goods Movement Emission Reduction Programs, as well as the participating truck and school bus fleets. SCAQMD received the DERA grant award through the WCC and distributed the grant funds to the participating truck and school bus fleets. SCAQMD was responsible for data monitoring and reporting for the project.

What is the Collaborative?

The WCC is an ambitious partnership between leaders from federal, state, local, and tribal government, the private sector, and environmental groups committed to reducing diesel emissions along the West Coast. Partners come from all over Western North America, including: Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Washington, the Pacific Islands, Canada and Mexico. The WCC is part of the US EPA National Clean Diesel Campaign (www.epa.gov/cleandiesel).

How can I find out more information?

For more information on this project, please contact John Mikulin at US EPA (mikulin.john@epa.gov / 415-972-3956). For more information on the WCC, please visit our website. www.westcoastcollaborative.org