



WEST COAST COLLABORATIVE

A public-private partnership to reduce diesel emissions

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.

DERA 2009/2010: Hawaii Clean Diesel Initiative

The West Coast Collaborative (WCC) is pleased to announce Honolulu Clean Cities' (HCC's) completion of its project involving heavy-duty diesel construction equipment and refuse hauler exhaust retrofits and transit bus biodiesel fueling. This project was implemented using \$300,000 in U.S. EPA Diesel Emissions Reduction Act (DERA) grant funding combined with \$1,122 in leveraged funds from HCC.

What is the Project?

Installed diesel particulate filter (DPF) retrofits on 4 nonroad heavy-duty diesel construction pavers and 5 on-highway heavy-duty diesel Class 8A refuse haulers, and fueled 25 on-highway heavy-duty transit buses with B20 biodiesel for 38 weeks. The project was implemented in three phases from 2011-2013.

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. The objective of this project was to achieve significant diesel emission reductions by utilizing cleaner fuel for transit buses, and by installing exhaust retrofits on pavers and refuse haulers. The targeted fleets will reduce emissions along interstate and international goods movement corridors in the State of Hawaii. The transit bus fleet transports riders throughout Oahu, including freeways and Honolulu International Airport. The pavers are intermittently used for road construction along Oahu's freeways, commercial and military air fields, and at local harbors. The refuse haulers are responsible for residential and commercial waste collection throughout Oahu.

What are the Environmental Benefits?

Over the remaining lifetime of the 34 affected engines, these upgrades will reduce emissions of fine particulate matter (PM_{2.5}) by 1.3 tons (DPF = 1.2 tons + B20 = 0.1 ton), hydrocarbons (HC) by 1.2 tons (DPF = 1 ton + B20 = 0.2 ton), carbon monoxide (CO) by 5.2 tons (DPF = 4.3 tons + B20 = 0.9 ton), and carbon dioxide (CO₂) by 14 tons (all from B20). Additionally, the reduction of PM_{2.5} emissions will reduce black carbon (BC), which influences climate by directly absorbing light, reducing reflectivity ("albedo") through deposition, and interacting with clouds. The B20 fueling component of this project also conserved nearly 25,000 gallons of diesel fuel.

Who were the Partners on this project?

The project was led by HCC, a non-profit organization whose mission is to reduce petroleum dependence and stimulate Hawaii's economy by increasing the use of alternative fuels and alternative fuel vehicles, in partnership with the City & County of Honolulu Departments of Facility Maintenance & Environmental Services, Oahu Transit Services and Grace Pacific Corporation. HCC received the DERA grant award through the WCC, and distributed the grant funds to the participating fleets serving the Island of Oahu. HCC was also responsible for data monitoring and reporting for the project with significant staff support from Hawaii's Rewarding Internships for Sustainable Employment (RISE) program.

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 U.S. EPA National Clean Diesel Campaign (NCDC).

www.epa.gov/cleandiesel

How can I find out more information?

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

www.westcoastcollaborative.org