



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.

Clean School Bus USA 2007: Arizona Department of Environmental Quality School Bus Retrofit Project

The West Coast Collaborative (WCC) is pleased to announce the Arizona Department of Environmental Quality's (ADEQ's) completion of its project to retrofit heavy-duty diesel school buses. This project was implemented using \$200,000 in U.S. EPA Clean School Bus USA grant funding combined with \$92,326 in Low Emission School Bus Program (LESBP) and \$2,206 in state air quality grant funds from ADEQ.

What is the Project?

123 heavy-duty diesel school bus engines were retrofitted with Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF) and Diesel Multi-Stage Filter (DMF) retrofit technologies. Buses were chosen from school districts serving populations in Maricopa, Pima and Yuma Counties.

Why is this project important?

This project's primary objective was to improve the environmental health of children by partnering with local school districts to install diesel exhaust retrofits on eligible buses. 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 children's exposure to diesel emissions as well as the negative health effects associated with exposure. Expected unquantifiable benefits of the project include increased awareness of the need to improve air quality, particularly among parents, school officials and others concerned with child health and welfare.

What are the Environmental Benefits?

Over the remaining lifetime of the 123 affected engines, these upgrades will reduce emissions of fine particulate matter (PM2.5) by 3 tons, hydrocarbons (HC) by 10 tons, and carbon monoxide (CO) by 38 tons. On an annual basis, the associated PM2.5 emissions reductions will generate nearly \$4 dollars in monetary health benefits in the affected counties for every \$1 spent on the project. Additionally, the reduction of PM2.5 emissions will also reduce black carbon (BC), which influences climate by directly absorbing light, reducing the reflectivity ("albedo") of snow and ice through deposition, and interacting with clouds.

How was this project funded?

The WCC provided \$200,000 in U.S. EPA Clean School Bus USA grant funds to support this project. In addition, ADEQ contributed \$92,326 in state LESBP funds and \$2,206 from air quality grant funds.

Who are the Partners on this project?

The project was led by ADEQ, a state agency tasked with protecting public health and the environment in the State of Arizona, in partnership with participating school bus fleets. ADEQ received the Clean School Bus USA grant award through the WCC, and distributed the grant funds to the participating school districts serving Maricopa, Pima and Yuma Counties. ADEQ was also responsible for data monitoring and reporting for the project.

What is the Collaborative?

The WCC is an ambitious partnership between leaders from federal, state, and local 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