



The goal of the West Coast 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 diesel engines and equipment with the cost effective control strategies.

DERA 2020: Tugboat Electrification Project at Port of San Diego

Under the 2020 Diesel Emissions Reduction Act (DERA) National Clean Diesel Program, the U.S. Environmental Protection Agency's (EPA) West Coast Collaborative awarded a \$2,017,660 grant to the San Diego County Air Pollution Control District to replace a diesel-powered tugboat with a new tugboat powered by a zero-emission electric propulsion system.

What is the project?

EPA's Pacific Southwest Region 9 provided a grant to the San Diego County Air Pollution Control District (APCD) to replace one Tier 2 diesel-powered tugboat, used in vessel escort operations at the Port of San Diego, with a new tugboat powered by a zero-emission electric propulsion system.

Why is this project important?

Exposure to diesel exhaust has been associated with decreased lung function and 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 tugboat to be replaced under this project operates full-time at the Port of San Diego, where nearby communities face significant air quality challenges. In addition, the San Diego Air Basin remains in non-attainment for ozone. San Diego County is also designated by US EPA as an air toxics assessment area where much of the population is exposed to more than 2.0 $\mu\text{g}/\text{m}^3$ of diesel particulate matter emissions. The tugboat to be upgraded in this project operates near the Portside Community of San Diego, which is disproportionately affected by heavy-duty diesel pollution from goods

movement operations at the Port of San Diego and along nearby major transport corridors.

What are the environmental & health benefits?

These equipment replacements will reduce emissions of NO_x by 204 tons, fine particulate matter by 3 tons, and carbon dioxide by 5,220 tons over the project lifetime. The project will also save over 44,200 gallons of diesel fuel over the project lifetime.

How was this project funded?

The EPA, through the West Coast Collaborative, provided \$2,017,660 in DERA National Program grant funds to the San Diego County APCD to enable the implementation of this project. San Diego County APCD and project partner Crowley Marine together provided \$17,611,637 in matching funds.

What is the West Coast 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. The WCC is part of the US EPA National Clean Diesel Program (www.epa.gov/cleandiesel).

How can I find out more information?

For more information on this project, please contact Francisco Dóñez at US EPA (donez.francisco@epa.gov or 213-244-1834). For more information on the WCC, please visit our website, www.westcoastcollaborative.org.