



Transportation Seminar Series

Friday, April 10, 2009

4 - 5 p.m. in 240 Bechtel Engineering Center

Robert A. Harley, PhD

Professor of Environmental Engineering
Department of Civil and Environmental Engineering
University of California, Berkeley

Goods Movement and the Environment: Trends in Diesel Engine Emissions

Abstract: Unlike the passenger transport sector which in the U.S. runs mainly on gasoline and jet fuel, the goods movement sector is powered mostly by diesel engines in heavy trucks, railroad locomotives, and ships. Both transportation and air quality engineers have focused most of their attention on the passenger transport sector in the past. There are many research needs and opportunities for environmental improvements in the diesel/goods movement sector at present and in the future. I will describe trends in gasoline and diesel engine emissions of carbon dioxide, nitrogen oxides, and particulate matter. Prospects for future reductions in emissions of NO_x and PM are clear, whereas a strategy for reducing CO_2 from goods movement is still needed.

Bio: Robert Harley is a Professor in the Department of Civil and Environmental Engineering at UC Berkeley, where he has been on the faculty since 1993. Harley's research includes field measurements of transportation-related sources of air pollution, and mathematical modeling of pollutant transport and transformation at urban and regional scales.

Harley earned his M.S. and Ph.D. in Environmental Engineering Science from the California Institute of Technology (Caltech), and his Bachelor's degree in Engineering Science from the University of Toronto.

Please join us for a TRANSOC-sponsored cookie hour in the ITS library at 3:30 p.m.