

## Chris Weaver

Mr. Weaver is the founder and President of Engine, Fuel, and Emissions Engineering, Inc. He is an automotive engineer with more than 25 years of experience in the areas of internal combustion engine technology, fuels, combustion, emissions, and emission controls. His recent work has focused on vehicle emissions measurement, alternative fuels such as natural gas and ethanol, and post-combustion emission control systems such as diesel particulate filters and [SCR](#).

Mr. Weaver is the inventor of EF&EE's patented "[ride along" emission sampling system \(RAVEM\)](#), providing the functionality of an EPA emission laboratory in a portable, cost-effective package. He has designed and managed emission testing programs on three continents, for vehicles ranging from passenger cars and buses to locomotives and ferry boats. He is currently directing projects to demonstrate EF&EE's Compact SCR™ technology on trucks, locomotives, ferryboats, and other non-road equipment.

As a consultant to the U.S. EPA during the 1980s, Mr. Weaver played an important role in the establishment of heavy-duty diesel emissions standards, sulfur and aromatic limits on diesel fuel, and the phase-out of leaded gasoline in the U.S. A preliminary study of emissions control for off-highway vehicles for EPA led to the inclusion of regulatory authority over such vehicles in the 1990 Clean Air Act amendments. More recently, Mr. Weaver served as an expert witness for the Justice Department in its landmark “defeat device” case against the major heavy-duty diesel engine manufacturers, and directed studies to assess technology for the proposed 2004 and 2007 heavy-duty engine emission standards.

As a technical consultant to the World Bank, Mr. Weaver played an important part in designing the Mexico City Transport Air Pollution Control Program, as well as similar efforts in Bangkok, São Paulo, Santiago de Chile, Buenos Aires and Colombo. He was one of three foreign experts contracted to advise the Bhure Lal committee appointed by the Indian Supreme Court to assess the court-ordered implementation of CNG buses and related control measures in Delhi. He has made substantial contributions to the worldwide phaseout of leaded gasoline – most recently, as the author of the “[Implementer's Guide to Phasing Out Lead In Gasoline](#)” distributed worldwide by the U.S. EPA and U.S. AID. Since 2004, he has served as an advisor to the U.N. Commission on Regional Development as a member of its expert panel on environmentally sustainable transport (EST).

Mr. Weaver was a senior engineer and project manager at Sierra Research for three years before leaving to form EF&EE. During this time, he also taught a post-graduate course in motor vehicle emissions and their control at Santa Maria Technical University in Chile. He was previously Group Leader of the Automotive Engineering and Emissions Control Group at Radian Corporation, and Director of Engineering at Energy and Resource Consultants. He holds a B.S. degree in Mechanical Engineering from Berkeley, with a minor in economics, and an M.S. in Mechanical Engineering from MIT. He is the author of more than two dozen technical papers and co-author of two books in the field of mobile-source emissions and their control.