CALIFORNIA
AIR RESOURCES BOARD

Remote Sensing Measurements of Light-Duty Vehicle Emissions at Multiple California Locations

Research Seminar – CARB Research Contract 20RD001

April 30, 2025

Logistics Notice

- Seminar is being recorded.
- Attendees will be muted during presentation.
- Q&A session will be after the presentation.
  - Type your questions or comments in Chat box; or
  - Zoom "Raise hand" function
- Project webpage: https://ww2.arb.ca.gov/remote-sensing-measurements-light-duty-vehicle-emissions-multiple-california-locations
  - Final report
  - Seminar presentation slides
  - Seminar recording
- For questions or comments after seminar, contact Tao Zhan (contract manager for this project): Tao.Zhan@arb.ca.gov

The Speaker: Mr. Alan Stanard

Mr. Stanard is a Staff Engineer at Eastern Research Group (ERG) with a focus on in-use vehicle and engine operation and emissions testing of internal combustion engines and vehicles. In this capacity, he has worked with laboratory and field emissions measurements of light- and heavy-duty vehicles. Mr. Stanard has managed and participated in emissions research projects to measure and characterize gaseous emissions from exhaust and evaporative systems, unregulated emissions, and particulate matter emissions from gasoline and diesel engines as well as light-duty vehicle brake systems. Mr. Stanard has also participated in numerous portable emission measurement system (PEMS) measurements and evaluations. Many of these research projects were conducted in support of informing vehicle emissions inventory models such as US EPA's Motor Vehicle Emissions Simulator (MOVES) and California Air Resources Board's Emission Factor (EMFAC) model. Prior to joining ERG, Mr. Stanard was a Project Manager as Southwest Research Institute responsible for projects involving exhaust emissions testing of light-duty gasoline and diesel vehicles. Mr. Stanard has been a presenter at multiple Coordinating Research Council's Real World Emissions conferences and his work has been published in multiple SAE journal articles.