

RESEARCH PROPOSALS

March 17, 2005

California Environmental Protection Agency



Air Resources Board

Ventilation and Indoor Air Quality in New Homes

Indoor Environmental Engineering

Francis J. Offermann

\$1,042,935 (31 months)

Funded by the California Energy Commission

Objective: Conduct a field study to gather information on ventilation characteristics and indoor air quality in new homes.

Expected Results: Representative information on indoor air quality and household ventilation practices from multiple seasons and regions of the state.

Hourly, In-Situ Quantitation of Organic Aerosol Marker Compounds

(Contract augmentation)

University of California, Berkeley

Professor Alan Goldstein

\$99,819 (9 months)

Objective: To deploy in-situ gas and aerosol phase instrumentation in Fresno and to analyze data sets to resolve organic aerosol source contributions.

Expected Results: Strong source attribution analysis of the major contributors to the organics in PM_{2.5} in the Central Valley.

Development and Demonstration of an Aerosol Tracer Technique

University of California, Los Angeles
Professor Keith Stolzenbach
\$87,704 (24 months)

Objective: To test tracer-based field methods by cyclic suspension, deposition, and resuspension.

Expected Results: Better estimation of the downwind migration and consequent health risk of fugitive particle pollution.

Dairy Operations: Comparison of Baseline and Potential Mitigation Practices in the San Joaquin Valley

California State University, Fresno

Professor Charles Krauter

\$249,980 (36 months)

Objective: To estimate the reactive organic gases (ROG) and ammonia emissions from dairies through a field monitoring and ambient air quality sampling program.

Expected Results: More accurate estimates of ammonia and ROG emissions from dairies; emissions quantification of different manure managing practices; an estimate of achievable emission reductions from various emission reduction technologies.

The Collection and Development of Exhaust Speciation Profiles from Commercial Jet Aircraft Engines

University of Missouri
Professor Philip Whitefield
\$259,966 (12 months)

Objective: To develop up-to-date chemical speciation profiles for the exhaust from modern commercial jet aircraft engines.

Expected Results: Updated data to develop improved commercial jet engine exhaust speciation profiles.

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