

RESEARCH PROPOSALS

September 27, 2007

California Environmental Protection Agency



Air Resources Board

EXPOSURE AND HEALTH EFFECTS



Assessing Exposures from Residential Wood Smoke Combustion Sources

California Polytechnic State University, San Luis Obispo
Tracy Thatcher
\$320,286 (36 months)

Objective: To clarify the nature of smoke exposures in a community with active residential wood burning.

Expected Results: Information on how local sources of wood smoke impact local air quality and how this contributes to individual exposures.

Cardiopulmonary Health Effects: Toxicity of Components of Ultrafine PM

University of California, Irvine

Michael Kleinman

\$501,484 (36 months)

Objective: Using animal studies, determine how the toxicity of ultrafine particles depends on the semi-volatile and non-volatile fractions of PM emitted from vehicles and other sources.

Expected Results: Understanding the toxicity of freshly emitted combustion aerosols and the fractions of the aerosol causally related to health effects.

Evaluation of Asthma Disparity Among Californians

University of California, Los Angeles

Ying-Ying Meng

\$299,794 (24 months)

Objective: To examine the disproportionate burden of asthma or asthma-like symptoms related to low socio-economic status versus greater susceptibilities.

Expected Results: Information on the effects of long-term air pollution exposure on chronic severe asthma and asthma-like symptoms in vulnerable populations.

GREENHOUSE GAS MITIGATION



Money Isn't All You're Saving

Life-Cycle Emission and Energy Efficiency Labels for Retail Products

University of California, Berkeley

Arpad Horvath

\$265,144 (30 months) *cofunded by SCAQMD*

Objective: To assess the life-cycle greenhouse gas emissions reductions that could occur through the use of emission label and standards for retail products sold in California.

Expected Results: The analytical framework to assess the potential impact that labeling and product standards may have on greenhouse gas emission reductions.

Evaluation of Efficiency Activities in the Industrial Sector for Greenhouse Gas Emission Reductions

University of California, Berkeley

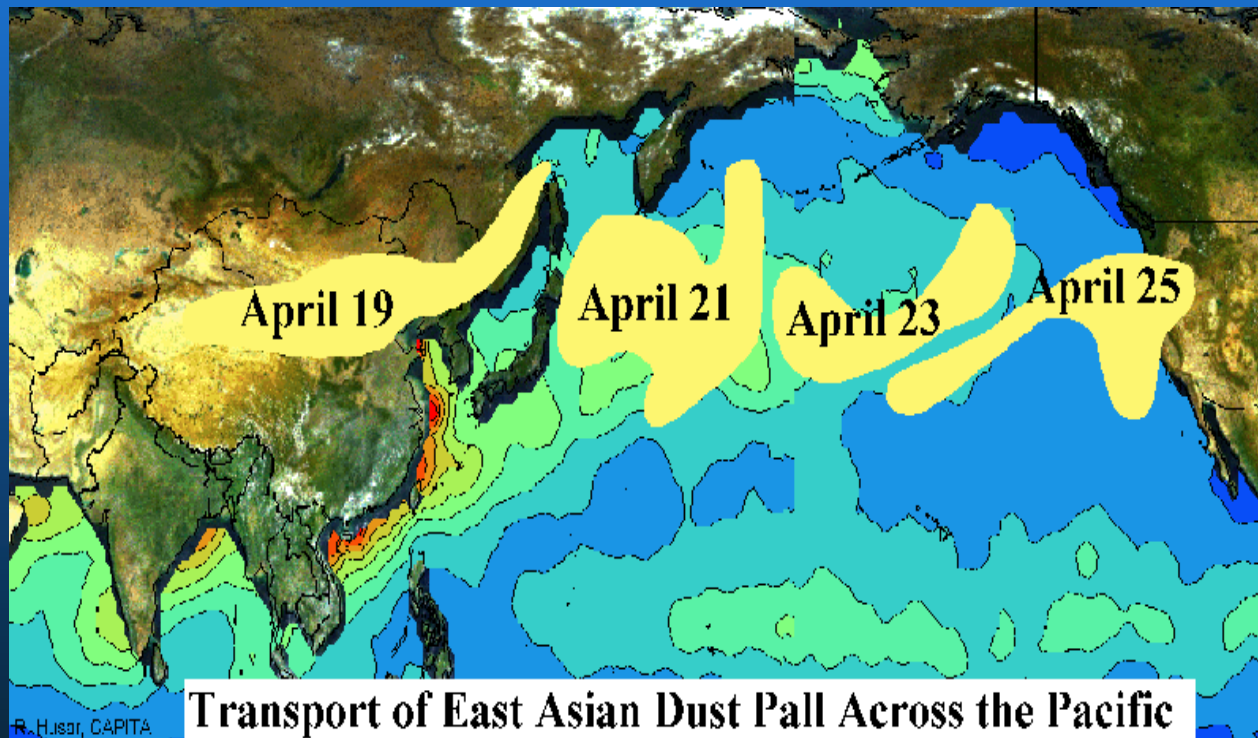
Arpad Horvath and Lynn Price

\$100,000 (18 months) *cofunded by SCAQMD*

Objective: To identify the characteristics of successful industrial sector GHG emissions reduction and energy efficiency programs in other countries.

Expected Results: A summary of lessons learned from other countries' programs that could be implemented in California.

EMISSIONS AND TRANSPORT



On-Road Motor Vehicle Emissions Measurements

University of Denver
Donald Stedman and Gary Bishop
\$90,042 (18 months)

Objective: To provide real world data from in-use light duty vehicles using newly developed remote sensing technology.

Expected Results: On-road emissions data for ammonia, nitrogen dioxide, and sulfur dioxide as well as for criteria pollutants.

Using Lead and Strontium Isotopes to Assess Asian Aerosol Impacts in Urban and Interior California

University of California, Berkeley
Donald DePaolo
\$80,806 (30 months)

Objective: To measure the fraction of Asian lead in particulate matter and estimate the mixing of Asian aerosols into the lower altitude, populated areas of the state.

Expected Results: Demonstration of the state of the art of isotopic methods for aerosol analysis and data on Asian aerosol mixing ratios in selected urban and rural low altitude locations in California .

RECOMMENDATION

**Approve Resolutions
07-32 through 38**