State of California
AIR RESOURCES BOARD

Resolution 87-59
July 9, 1987

WHEREAS, the Air Resources Board has been directed to carry out an effective research program in conjunction with its efforts to combat air pollution, pursuant to Health and Safety Code Sections 39700 through 39705; and

WHEREAS, a request for budget augmentation for Contract Number A5-174-33, entitled "Comparison of Indoor Toxic Air Pollutant Levels in Several Southern California Communities," has been submitted by the Research Triangle Institute; and

WHEREAS, the Research Division staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding:

> Augmentation to Contract Number A5-174-33, entitled "Comparison of Indoor Toxic Air Pollutant Levels in Several Southern California Communities," submitted by the Research Triangle Institute, for a total amount not to exceed $21,559.

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board, pursuant to the authority granted by Health and Safety Code Section 39703, hereby accepts the recommendation of the Research Screening Committee and approves the following:

> Augmentation to Contract Number A5-174-33, entitled "Comparison of Indoor Toxic Air Pollutant Levels in Several Southern California Communities," submitted by the Research Triangle Institute, for a total amount not to exceed $21,559.

BE IT FURTHER RESOLVED, that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and contracts to augment the research effort referred to herein by $21,559, for a total amount not to exceed $233,639.

I hereby certify that the above is a true and correct copy of Resolution 87-59, as adopted by the Air Resources Board.

Harold Holmes

Harold Holmes, Board Secretary

ITEM NO.: 87-10-4(b) 1
DATE: July 9, 1987

State of California
AIR RESOURCES BOARD

ITEM: Augmentation for Contract No. A5-174-33 entitled "Comparison of Indoor Toxic Air Pollutant Levels in Several Southern California Communities."

RECOMMENDATION: Adopt Resolution 87-59 approving a budget augmentation of Contract No. A5-174-33 by Research Triangle Institute for an amount not to exceed $21,559.

SUMMARY: Currently, the ARB is participating in a monitoring study, sponsored by the Environmental Protection Agency, to measure human exposure to certain known or suspected toxic air contaminants. Specifically, ARB has provided support for concurrent indoor/outdoor monitoring of concentrations of specific organic chemicals during two seasons, one of which has now been completed.

The requested augmentation will take advantage of this ongoing field study to obtain additional urgently needed data on indoor and outdoor concentrations of certain known or suspected toxic air contaminants. The needed monitoring data requires the scheduled use of a specialized canister-based collection technique which was not provided for in the original study proposal. Fifty canisters would be deployed in the Torrance area to obtain samples of indoor and outdoor air to be analyzed for fourteen volatile organic compounds. The analyses will then be incorporated into the results of the overall study. The initial contract did not allow for these substances to be monitored.

The study addresses an objective for toxic air contaminant research identified in the ARB's Long-Range Research Plan --- to characterize source/receptor relationships.

As with the current contract, the contractor for this project is the Research Triangle Institute and the principal investigator is Dr. E. D. Pellizzari.

State of California
AIR RESOURCES BOARD

Resolution 87-60
July 9, 1987

WHEREAS, the Air Resources Board has been directed to carry out an effective research program in conjunction with its efforts to combat air pollution, pursuant to Health and Safety Code Sections 39700 through 39705; and

WHEREAS, a solicited research proposal, Number 1548-134, entitled "Estimating Mean Concentrations When Some Data are Below the Detection Limit," has been submitted by the University of California, Davis;

WHEREAS, the Research Division staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding:

> Proposal Number 1548-134, entitled "Estimating Mean Concentrations When Some Data are Below the Detection Limit," submitted by the University of California, Davis, for a total amount not to exceed $16,242.

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board, pursuant to the authority granted by Health and Safety Code Section 39703, hereby accepts the recommendation of the Research Screening Committee and approves the following:

> Proposal Number 1548-134, entitled "Estimating Mean Concentrations When Some Data are Below the Detection Limit," submitted by the University of California, Davis, for a total amount not to exceed $16,242.

BE IT FURTHER RESOLVED, that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and contracts for the research effort proposed herein in an amount not to exceed $16,242.

I hereby certify that the above is a true and correct copy of Resolution 87-60, as adopted by the Air Resources Board.

Harold Holmes

Harold Holmes, Board Secretary

ITEM NO.: 87-10-4(b) 2
DATE: July 9, 1987

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 1548-134 entitled "Estimating Mean Concentrations When Some Data are Below the Detection Limit."

RECOMMENDATION: Adopt Resolution 87-60 approving Proposal No. 1548-134 for funding in an amount not to exceed $16,242.

SUMMARY: In order to aid in the process of designating toxic air contaminants, the Board requires estimates of general population exposures to candidate substances. Computing average ambient concentrations of these substances and evaluating the accuracy of these averages is not straightforward because there are limited ambient monitoring data and because many observations are below the detection limit of the analytical method. Standard statistical methods perform poorly on such data. This proposal was submitted in response to an RFP designed to address this problem.
The objectives of this study are: to develop improved statistical methods for estimating the average concentrations and for evaluating the accuracy of these averages, to thoroughly assess and document the statistical properties of these methods, and to provide computer programs for calculating the estimates.

The principal investigator for this proposed effort is Robert Shumway of the Statistics Department, University California, Davis.