State of California

AIR RESOURCES BOARD

Resolution 90-13
April 13, 1990

**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 1773-156 entitled "Characterization of Driving Patterns and Emissions from Light-Duty Vehicles in California," has been submitted by Sierra Research, Inc.; 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:

> Proposal Number 1773-156 entitled "Characterization of Driving Patterns and Emissions from Light-Duty Vehicles in California," submitted by Sierra Research, Inc., for a total amount not to exceed $249,923.

**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 1773-156, entitled "Characterization of Driving Patterns and Emissions from Light-Duty Vehicles in California," submitted by Sierra Research, Inc., for a total amount not to exceed $249,923.

**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 $249,923.

I hereby certify that the above is a true and correct copy of Resolution #90-13, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-14
April 13, 1990

**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 1765-155 entitled "Effects of Use of Low-Oxygenate Gasoline Blends Upon Emissions from California Vehicles," has been submitted by Automotive Testing Laboratories, Inc.; 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:

> Proposal Number 1765-155, entitled "Effects of Use of Low-Oxygenate Gasoline Blends Upon Emissions from California Vehicles," submitted by Automotive Testing Laboratories, Inc., for a total amount not to exceed $740,000.

**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 1765-155, entitled "Effects of Use of Low-Oxygenate Gasoline Blends Upon Emissions from California Vehicles," submitted by Automotive Testing Laboratories, Inc., for a total amount not to exceed $740,000.

**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 $740,000.

I hereby certify that the above is a true and correct copy of Resolution #90-14, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-15
April 13, 1990

**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 1781-156 entitled "A Survey and Analysis of Employee Responses to Employer-Sponsored Trip Reduction Incentive Programs", has been submitted by COMSIS Corporation; 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:

> Proposal Number 1781-156, entitled "A Survey and Analysis of Employee Responses to Employer-Sponsored Trip Reduction Incentive Programs," submitted by COMSIS Corporation, for a total amount not to exceed $195,417.

**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 1781-156, entitled "A Survey and Analysis of Employee Responses to Employer-Sponsored Trip Reduction Incentive Programs," submitted by COMSIS Corporation, for a total amount not to exceed $195,417.

**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 $195,417.

I hereby certify that the above is a true and correct copy of Resolution #90-15, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-16
April 13, 1990

**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**, an unsolicited research proposal, Number 1761-155 entitled "Determination of Emissions from Open Burning of Agricultural and Forestry Wastes-Phase II: Flame Characterization," has been submitted by the University of California, Davis; 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:

> Proposal Number 1761-155, entitled "Determination of Emissions from Open Burning of Agricultural and Forestry Wastes-Phase II: Flame Characterization," submitted by the University of California, Davis, for a total amount not to exceed $54,044.

**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 1761-155, entitled "Determination of Emissions from Open Burning of Agricultural and Forestry Wastes-Phase II: Flame Characterization," submitted by the University of California, Davis, for a total amount not to exceed $54,044.

**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 $54,044.

I hereby certify that the above is a true and correct copy of Resolution #90-16, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-17
April 13, 1990

**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**, an unsolicited research proposal, Number 1790-156 entitled "Analysis of On-Road CO Emissions," has been submitted by the University of Denver; 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:

> Proposal Number 1790-156 entitled "Analysis of On-Road CO Emissions," submitted by the University of Denver, for a total amount not to exceed $24,990.

**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 1790-156, entitled "Analysis of On-Road CO Emissions," submitted by the University of Denver, for a total amount not to exceed $24,990.

**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 $24,990.

I hereby certify that that above is a true and correct copy of Resolution #90-17, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-18
April 13, 1990

**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 1779-156 entitled "Methods Development for Quantification of Ozone Transport for California," has been submitted by Sonoma Technology, Inc.; 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:

> Proposal Number 1779-156 entitled "Methods Development for Quantification of Ozone Transport for California," submitted by Sonoma Technology, Inc., for a total amount not to exceed $423,430.

**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 1779-156, entitled "Methods Development for Quantification of Ozone Transport for California," submitted by Sonoma Technology, Inc., for a total amount not to exceed $423,430.

**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 $423,430.

I hereby certify that the above is a true and correct copy of Resolution #90-18, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-19
April 13, 1990

**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**, an unsolicited research proposal, Number 1769-156, entitled "Dermal Absorption of Methanol and Gasoline/Methanol Mixtures," has been submitted by the University of California, Davis; 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:

> Proposal Number 1769-156, entitled "Dermal Absorption of Methanol and Gasoline/Methanol Mixtures," submitted by the University of California, Davis, for a total amount not to exceed $84,373.

**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 1769-156, entitled "Dermal Absorption of Methanol and Gasoline/Methanol Mixtures," submitted by the University of California, Davis, for a total amount not to exceed $84,373.

**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 $84,373.

I hereby certify that the above is a true and correct copy of Resolution #90-19, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-20
April 13, 1990

**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 1759-155 entitled "The Toxicities of Chemical Constituents of $PM_{10}$ in the South Coast Air Basin of California," has been submitted by the University of California, Irvine; 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:

> Proposal Number 1759-155, entitled "The Toxicities of Chemical Constituents of $PM_{10}$ in the South Coast Air Basin of California," submitted by the University of California, Irvine, for a total amount not to exceed $449,261.

**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 1759-155, entitled "The Toxicities of Chemical Constituents of $PM_{10}$ in the South Coast Air Basin of California," submitted by the University of California, Irvine, for a total amount not to exceed $449,261.

**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 $449,261.

I hereby certify that the above is a true and correct copy of Resolution #90-20, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-21
April 13, 1990

**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**, an unsolicited research proposal, Number 1768-155, entitled "Incidence of Respiratory Symptoms and Chronic Diseases in a Non-Smoking Population as a Function of Long-Term Cumulative Exposure to NO2, PM2.5, and PM10," has been submitted by the Loma Linda University Preventive Medicine Medical Group, Inc.; 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:

> Proposal Number 1768-155, entitled "Incidence of Respiratory Symptoms and Chronic Diseases in a Non-Smoking Population as a Function of Long-Term Cumulative Exposure to NO2, PM2.5, and PM10," submitted by the Loma Linda University Preventive Medicine Medical Group, Inc., for a total amount not to exceed $218,335.

**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 1768-155, entitled "Incidence of Respiratory Symptoms and Chronic Diseases in a Non-Smoking Population as a Function of Long-Term Cumulative Exposure to NO2, PM2.5, and PM10," submitted by the Loma Linda University Preventive Medicine Medical Group, Inc., for a total amount not to exceed $218,335.

**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 $218,335.

I hereby certify that the above is a true and correct copy of Resolution #90-21, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-22
April 13, 1990

**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 1752-155, entitled "Development of a Model for Assessing Indoor Exposure to Air Pollutants", has been submitted by GEOMET Technologies, Inc.; 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:

> Proposal Number 1752-155, entitled "Development of a Model for Assessing Indoor Exposure to Air Pollutants", submitted by GEOMET Technologies, Inc., for a total amount not to exceed $223,200.

**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 1752-155, entitled "Development of a Model for Assessing Indoor Exposure to Air Pollutants", submitted by GEOMET Technologies, Inc., for a total amount not to exceed $223,200.

**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 $223,200.

I hereby certify that the above is a true and correct copy of Resolution #90-22, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-23
April 13, 1990

**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**, an unsolicited research proposal, Number 1789-156 entitled "A Demonstration of the Effects of Smog on Ornamental and Home Garden Plants", has been submitted by the California Arboretum Foundation, Inc., Department of Arboreta and Botanic Gardens; 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:

> Proposal Number 1789-156, entitled "A Demonstration of the Effects of Smog on Ornamental and Home Garden Plants," submitted by the California Arboretum Foundation, Inc., Department of Arboreta and Botanic Gardens, for a total amount not to exceed $65,727.

**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 1789-156, entitled "A Demonstration of the Effects of Smog on Ornamental and Home Garden Plants," submitted by the California Arboretum Foundation, Inc., Department of Arboreta and Botanic Gardens, for a total amount not to exceed $65,727.

**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 $65,727.

I hereby certify that the above is a true and correct copy of Resolution #90-23, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 90-24
April 13, 1990

**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**, an unsolicited research proposal, Number 1788-156 entitled "Crop and Forest Losses From Air Pollutants - An Assessment Program", has been submitted by the University of California, Riverside; 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:

> Proposal Number 1788-156, entitled "Crop and Forest Losses From Air Pollutants - An Assessment Program," submitted by the University of California, Riverside, for a total amount not to exceed $97,519.

**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 1788-156, entitled "Crop and Forest Losses From Air Pollutants - An Assessment Program," submitted by the University of California, Riverside, for a total amount not to exceed $97,519.

**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 $97,519.

I hereby certify that the above is a true and correct copy of Resolution #90-24, as adopted by the Air Resources Board.

Jude Lounsbury

Jude Lounsbury, Board Secretary