State of California
AIR RESOURCES BOARD

Resolution 86-7
February 28, 1986

WHEREAS, the Air Resources Board has been directed to design and implement a comprehensive program of research and monitoring of acid deposition in California pursuant to Health and Safety Code Sections 39900 through 39915; and

WHEREAS, a solicited research proposal, Number 95-15, entitled "Effects of Acid Deposition on Materials," has been submitted by Environmental Monitoring & Services, Inc. to the ARB; and

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

WHEREAS, the Scientific Advisory Committee on Acid Deposition has reviewed and recommends for funding:

> Proposal Number 95-15 entitled "Effects of Acid Deposition on Materials," submitted by Environmental Monitoring & Services, Inc. for a total amount not to exceed $232,581.

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board, pursuant to the authority granted by Health and Safety Code Section 39906, hereby accepts the recommendation of the Scientific Advisory Committee on Acid Deposition and approves the following:

> Proposal Number 95-15 entitled "Effects of Acid Deposition on Materials," submitted by Environmental Monitoring & Services, Inc. for a total amount not to exceed $232,581.

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 $232,581.

I hereby certify that the above is a true and correct copy of Resolution 86-7 as adopted by the Air Resources Board.

Harold Holmes

Harold Holmes, Board Secretary

ITEM NO.: 86-2-5(b)1
DATE: February 28, 1986

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 95-15 entitled "Effects of Acid Deposition on Materials."

RECOMMENDATION: Adopt Resolution 86-7 approving Proposal No. 95-15 for funding in an amount not to exceed $232,581.

SUMMARY: The purpose of this study is to distinguish the portion of materials damage which is caused by acid deposition from the damage that is induced by non-acidic pollutants or normal weathering in the absence of air pollutants. The Kapiloff Acid Deposition Act requires the Air Resources Board to assess the economic impact of acid deposition upon materials as part of a comprehensive research program to determine the nature, extent and potential effects of acid deposition in California.

The research plan proposed by Environmental Monitoring & Services Inc., (EMSI) includes a combined field and laboratory study. EMSI would study five economically important materials. Ten one-month long laboratory chamber experiments would be conducted to investigate the effects of natural weathering and the relative effects of individual and combinations of aerometric parameters with continuous wet/dry cycles. In addition, a twelve-month field exposure program would be initiated at four California sites. EMSI would also monitor ambient nitric acid concentrations, temperature, and relative humidity. Other aerometric data will be obtained from the existing monitoring network.

This comprehensive laboratory and field study is needed to provide the Board with valuable information on the corrosion rates caused by natural process and anthropogenic pollutants. Such information would be needed in determining the cost-benefit of emission controls with respect to the materials damage for a number of economically important materials in California.

The research contractor would be the Environmental Monitoring & Services Inc., and the Principal Investigator would be Dr. R. Vijayakumar.

BUDGET SUMMARY

Environmental Monitoring & Services, Inc.

"Effects of Acid
Deposition on Materials"

BUDGET ITEMS:

Salaries	$ 84,090	
Benefits	30,456	
Supplies/Equipment*	11,040	
Travel	4,994	
TOTAL, Direct Costs		$130,580
TOTAL, Indirect Costs		102,001
	TOTAL PROJECT COSTS	$232,581

* Supplies and Equipment include data logger, electrochemical sensors, exposure material and associated supplies.