

**State of California  
AIR RESOURCES BOARD**

Resolution 01-13  
April 26, 2001

Agenda Item No.: 01-3-4

**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;

**WHEREAS**, a research proposal, number 2488-219, entitled "Environmental Health Conditions in Portable Classrooms -- Augmentation," has been submitted by Research Triangle Institute.

**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 2488-219 entitled "Environmental Health Conditions in Portable Classrooms -- Augmentation," submitted by Research Triangle Institute, for a total amount not to exceed \$125,999.

**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 2488-219 entitled "Environmental Health Conditions in Portable Classrooms -- Augmentation," submitted by Research Triangle Institute, for a total amount not to exceed \$125,999.

**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, and as described in Attachment A, in an amount not to exceed \$125,999.

I hereby certify that the above is a true and correct copy of Resolution 01-13, as adopted by the Air Resources Board.

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**Marie Kavan, Clerk of the Board**

## **Attachment A**

### **“Environmental Health Conditions in Portable Classrooms – Augmentation”**

#### **Background**

Research Triangle Institute (RTI) was recently funded by the ARB to conduct the major field work for the California Portable Classrooms Study, a statewide study conducted jointly by the ARB and the Department of Health Services (DHS). That study was requested by Governor Davis and mandated by the California Health and Safety Code, Section 39619.6. It includes measurements of indoor air pollutant levels and environmental conditions in 240 classrooms at 60 schools, including both portable and traditional classrooms.

The investigators will also collect floor dust samples in all classrooms, primarily from carpets, for the analysis of animal allergens. Because floor dust also serves as a reservoir for persistent pollutants, its pollutant concentrations provide an indication of historical buildup and potential long-term exposure to hazardous pollutants in floor dust. Exposure to the dust components can occur when dust is re-suspended and inhaled, when it contacts hands and food and is ingested, and when components are absorbed through skin contact with carpets.

Further analyses of these floor dust samples for pesticides, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals were proposed as an option in RTI's original proposal, as requested by the ARB's Request For Proposals. However, this optional proposal was not funded by the ARB because of insufficient funds at the time.

#### **Objectives**

The objectives of this project are to conduct the following additional tasks as part of the California Portable Classrooms Study:

- Analyze indoor floor dust samples for pesticides, PAHs, PCBs, and metals using the floor dust samples already collected.
- Sample and analyze indoor and outdoor air to identify and count viable and non-viable mold spores.
- Provide for the contractor's participation to support a technical review panel for the optional pollutant monitoring and analysis protocols.

#### **Expected Results**

The investigators would obtain important environmental measurements from schools across California, information that would otherwise not be available. They would initially analyze floor dust samples for pesticides, PAHs, PCBs, and metals in composite samples from 60 schools, followed by analysis of samples for individual classrooms where elevated pollutant levels are found. The investigators would count and identify mold spores, both viable and non-viable, to complement the sampling of the microbiological sampling of culturable (viable) species in the main study. The

investigators would also participate and assist in the meetings of a small technical advisory group that will be arranged by the ARB.

**Significance to the Board**

The dust sample and mold analyses would greatly increase the available information on potential health risks children and teachers face from exposures to pollutants in schools. The targeted pollutants are thought to present significant health risks for all children, and for asthmatic children and adults. These additions would greatly improve the ability of the ARB and the DHS to assess the environmental health conditions in California's classrooms, and to develop effective recommendations to prevent harmful exposures to toxic pollutants in classrooms.

**Contractor:**  
Research Triangle Institute

**Contract Period:**  
12 months

**Principal Investigators (PIs):**  
Mr. Gerry Akland and Dr. Roy Whitmore

**Contract Amount:**  
\$125,999

**Cofunding:**  
None.

**Basis for Indirect Cost Rate:**  
The contractor's federally approved rates.

**Past Experience with this Principal Investigators:**

The contractors are currently Principal Investigator and Co-Principal Investigator in the California Portable Classrooms Study, and have performed very well to date. In addition, the ARB previously co-funded a successful federal study of personal and indoor exposures in southern California, in which Dr. Whitmore was a key team member. The ARB has not previously funded any projects involving Mr. Akland, but he has recently conducted successful studies of indoor, outdoor, and personal exposures to volatile organic compounds and/or aldehydes in Sacramento and in southern California.

**Prior Research Division Funding to Research Triangle Institute:**

Year	2000	1999	1998
Funding	\$673,879	\$0	\$0

# BUDGET SUMMARY

Research Triangle Institute

“Environmental Health Conditions in Portable Classrooms -- Augmentation”

## **DIRECT COSTS AND BENEFITS**

1.	Labor and Employee Fringe Benefits	\$47,009	
2.	Subcontractors	\$ 0	
3.	Equipment	\$ 0	
4.	Travel and Subsistence	\$ 0	
5.	Electronic Data Processing	\$ 0	
6.	Reproduction/Publication	\$ 310	
7.	Mail and Phone	\$ 640	
8.	Supplies	\$ 9,884	
9.	Analyses	\$ 0	
10.	Miscellaneous	<u>\$ 4,295</u>	
	Total Direct Costs		\$62,138

## **INDIRECT COSTS**

1.	Overhead	\$32,409	
2.	General and Administrative Expenses	\$20,163	
3.	Other Indirect Costs	\$ 198	
4.	Fee or Profit	<u>\$11,091</u>	
	Total Indirect Costs		<u>\$63,861</u>

## **TOTAL PROJECT COSTS**

**\$125,999**