State of California
AIR RESOURCES BOARD

Resolution 01-11
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 2479-218, entitled "Collection of Micro-Scale Emissions Activity Data in the South Coast Air Basin," has been submitted by Sonoma Technology, Incorporated.

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 2479-218 entitled "Collection of Micro-Scale Emissions Activity Data in the South Coast Air Basin," submitted by Sonoma Technology, Incorporated, for a total amount not to exceed $106,855.

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 2479-218 entitled "Collection of Micro-Scale Emissions Activity Data in the South Coast Air Basin," submitted by Sonoma Technology, Incorporated, for a total amount not to exceed $106,855.

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 has described in Attachment A, in an amount not to exceed $106,855.

I hereby certify that the above is a true and correct copy of Resolution 01-11, as adopted by the Air Resources Board.

_____
Marie Kavan, Clerk of the Board

Attachment A

"Collection of Micro-Scale Emissions Activity Data in the South Coast Air Basin"

Background

Air quality plans to attain the national and State ambient air quality standards rely on photochemical models. These models guide decision-makers about the types and amounts of ozone precursor controls adopted. The emission inventories that drive these models are based primarily on annual averages. However, emissions patterns vary spatially and temporally depending on the season, the hour-of-day, and the-day-of week. These variations in emissions cause ambient ozone concentrations in many urban areas to be higher on weekends than on weekdays. This is known as the Ozone Weekend Effect, and it is now evident that it occurs throughout most of the South Coast Air Basin (soCAB) (including the region of peak ozone concentrations). The development of the most appropriate emission control plans will require a true weekend emissions inventory as input to the photochemical model.

Objective

This project will collect activity data related to emissions from on-road, off-road, and stationary emission sources around five monitoring sites in the SoCAB. The primary purpose is to quantify the differences in activity from weekdays to weekends at a variety of locations. A secondary purpose is to enable ARB staff to better assess the influences of nearby emission sources on the ambient air quality measurements at each monitoring site. A tertiary objective is to collect activity data at a site that Sonoma Technology, Inc. investigated during the fall of 2000 so ARB staff can roughly assess seasonal differences in activities.

Expected Results

The ARB will use the activity data collected during this and other related projects to improve the emission inventories (particularly for weekends). These inventories will be used in the photochemical modeling applications. The improved representation of emissions patterns will improve the performance of photochemical models. This will result in appropriate and effective ozone control programs. We will also use the results from this project to identify any undue local influence on the ambient air quality measurements. It is important in data analysis and modeling applications that the ambient measurements are representative of the neighborhood and not unduly influenced by local sources. So that we can investigate the seasonal variation in activity data, we will collect the summer 2001 data from at least one of the sites used to collect fall 2000 data.

Significance to the Board

The results of this project will help us better understand the cause(s) of the ozone weekend effect. It will also enable better photochemical modeling of peak ozone days. This improved modeling will support revision of the State Implementation Plan for ozone. Finally, the results will initiate a review of the local emission sources potentially biasing air quality measurements at five sites in the SoCAB.

Contractor:
Sonoma Technology, Incorporated

Contract Period:
12 months

Principal Investigator (PI):
Mr. Lyle R. Chinkin

Contract Amount:
$106,855

Cofunding:
This proposal expands upon a project sponsored by the U.S. Department of Energy, National Renewable Energy Laboratory, conducted/initiated in the fall of 2000.

Basis for Indirect Cost Rate:
The Defense Contract Audit Agency (DCAA) is auditing STI's indirect cost rate for 1998 on behalf of the U.S. Environmental Protection Agency and the Department of Interior's Mineral Management Service. In a draft letter dated December 31, 2000, the DCAA indicated that its "audit did not find any exceptions to STI's proposed FY 1998 final indirect rates." Final approval of the 1998 audit results is expected shortly. DCAA will soon begin their audit of STI's rates during 1999 and 2000.

Past Experience with this Principal Investigator:
The ARB's emission inventory staff have been very satisfied with the work of this principal investigator in previous projects. In fact, this project benefits from the PI's familiarity with the ARB's emission inventory as the developer of several components.

Prior Research Division Funding to Sonoma Technology, Incorporated:

Year	2000	1999	1998
Funding	$0	$0	$0

B U D G E T S U M M A R Y

Sonoma Technology, Incorporated

Collection of Micro-Scale Emissions Activity Data in the South Coast Air Basin

DIRECT COSTS AND BENEFITS				
1.	Labor and Employee Fringe Benefits	$	26,593	
2.	Subcontractors	$	44,925	
3.	Equipment	$	0	
4.	Travel and Subsistence	$	1,482	
5.	Electronic Data Processing	$	400	
6.	Reproduction/Publication	$	0	
7.	Mail and Phone	$	0	
8.	Supplies	$	0	
9.	Analyses	$	0	
10.	Miscellaneous	$	1,228[1]	
	Total Direct Costs			$74,628
INDIRECT COSTS				
1.	Overhead	$	24,668	
2.	General and Administrative Expenses	$	0	
3.	Other Indirect Costs	$	0	
4.	Fee or Profit	$	7,559	
	Total Indirect Costs			$32,227
TOTAL PROJECT COSTS				**$106,855**

[1] PC and GIS equipment rental

Attachment 1

S U B C O N T R A C T O R S' B U D G E T S U M M A R Y

Freeman, Sullivan, and Company

Will collect activity data via surveys (telephone and mailings)

DIRECT COSTS AND BENEFITS				
1.	Labor and Employee Fringe Benefits	$	8,084	
2.	Subcontractors	$	5,178	
3.	Equipment	$	0	
4.	Travel and Subsistence	$	0	
5.	Electronic Data Processing	$	1,575	
6.	Reproduction/Publication	$	1,800	
7.	Mail and Phone	$	858	
8.	Supplies	$	0	
9.	Analyses	$	0	
10.	Miscellaneous	$	0	
	Total Direct Costs			$17,495
INDIRECT COSTS				
1.	Overhead	$	0	
2.	General and Administrative Expenses	$	9,930	
3.	Other Indirect Costs	$	0	
4.	Fee or Profit	$	0	
	Total Indirect Costs			$9,930
TOTAL PROJECT COSTS				**$27,425**

Attachment 2

S U B C O N T R A C T O R S' B U D G E T S U M M A R Y

Subcontractor: Wiltech

Description of subcontractor's responsibility: traffic counters

DIRECT COSTS AND BENEFITS				
11.	Labor and Employee Fringe Benefits	$		
12.	Subcontractors	$		
13.	Equipment	$		
14.	Travel and Subsistence	$		
15.	Electronic Data Processing	$		
16.	Reproduction/Publication	$		
17.	Mail and Phone	$		
18.	Supplies	$		
19.	Analyses	$		
20.	Miscellaneous[1]	$	17,500	
	Total Direct Costs			$17,500
INDIRECT COSTS				
5.	Overhead	$	0	
6.	General and Administrative Expenses	$	0	
7.	Other Indirect Costs	$	0	
8.	Fee or Profit	$	0	
	Total Indirect Costs			$0
TOTAL PROJECT COSTS				**$17,500**

1 rent of traffic counters