

State of California  
AIR RESOURCES BOARD

Resolution 02-20

May 16, 2002

Agenda Item No.: 02-4-2

**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 2521-225, entitled "Augmentation of Collection of Evaporative Emissions Data from Off-Road Equipment" 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 2521-225, entitled "Augmentation of Collection of Evaporative Emissions Data from Off-Road Equipment", submitted by Automotive Testing Laboratories, Inc., for a total amount not to exceed \$24,968.43.

**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 2521-225, entitled "Augmentation of Collection of Evaporative Emissions Data from Off-Road Equipment", submitted by Automotive Testing Laboratories, Inc., for a total amount not to exceed \$24,968.43.

**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 \$24,968.43.

I hereby certify that the above is a true and correct copy of Resolution 02-20, as adopted by the Air Resources Board.

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Stacey Dorais, Clerk of the Board

## **Attachment A**

### **“Augmentation of Collection of Evaporative Emissions Data from Off-Road Equipment”**

#### **Background**

Contract Number 00-315 (for \$286,000) was initiated to produce evaporative emission data from 40 pieces of off-road equipment comprised of lawn-and-garden devices, recreational watercraft, motorcycles, and generators. The original test plan included ten measurements of the effect of adding then-unspecified changes to provide emission control. The “with-control” tests were to be run on certain pieces of equipment that would already have been tested as-received as part of the main testing effort. Work began in March 2001.

During the course of the work, MLD and ATL agreed to supplant certain of the planned tests, including those allocated for the “with-control” work, with tests using a winter temperature profile and wintertime fuel. The substitutions were made according to the relative values of the various tests as perceived at the time.

ATL has performed the complete revised test plan. All but \$30,000 of the work has been invoiced. However, MLD now finds that measurements of the effect of using barrier treated tanks are critical to regulatory development. They should be performed by ATL to maintain a consistent data set.

#### **Objective**

The objective is to obtain empirical data on the effect on evaporative emissions of using barrier-treated fuel tanks instead of untreated polyethylene plastic tanks. The data are needed for estimating the cost-effectiveness of requiring such tanks on new off-road equipment.

#### **Methods**

The test methods used in the previous portions of the project will follow. Five selected items of lawn and garden equipment will be tested in a sealed housing for evaporative determination (SHED) facility for hot soak and diurnal emissions with the original equipment tanks and then with barrier-treated tanks supplied by ARB. In addition, a walk behind lawn mower will be tested on a dynamometer for running loss emissions with both the original tank and a barrier-treated tank.

#### **Expected Results**

The staff will be provided the requisite data on emission reductions.

#### **Significance to the Board**

The estimates of cost-effectiveness will support a future proposal for a regulation setting a standard for the fuel tanks on new lawn-and-garden equipment.

**Contractor:** Automotive Testing Laboratories, Inc.

**Contract Period:** 2 months

**Principal Investigator (PI):** Dennis McClement

**Contract Amount:** \$24,968.43

**Cofunding:** none

**Basis for Indirect Cost Rate:** The contractor is using a federally approved rate.

**Past Experience with this Principal Investigators**

Automotive Testing Laboratories has performed the existing contract well.

**Prior Research Division Funding to Automotive Testing Laboratories:**

Year	2001	2000	1999
Funding	\$0	\$285,912.20	\$0

# BUDGET SUMMARY

Automotive Testing Laboratories

“Augmentation of Collection of Evaporative Emissions Data  
from Off-Road Equipment”

## **DIRECT COSTS AND BENEFITS**

1.	Labor and Employee Fringe Benefits	\$	323.70
2.	Subcontractors	\$	750.00
3.	Equipment	\$	0
4.	Travel and Subsistence	\$	0
5.	Electronic Data Processing	\$	0
6.	Reproduction/Publication	\$	0
7.	Mail and Phone	\$	0
8.	Supplies	\$	0
9.	Analyses	\$	0
10.	Miscellaneous	\$	<u>22,600.00</u> <sup>1</sup>
	Total Direct Costs		\$23,673.70

## **INDIRECT COSTS**

1.	Overhead	\$	785.20
2.	General and Administrative Expenses	\$	313.97
3.	Other Indirect Costs	\$	0
4.	Fee or Profit	\$	<u>195.56</u>
	Total Indirect Costs		<u>\$1,294.73</u>

## **TOTAL PROJECT COSTS**

**\$24,968.43**

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<sup>1</sup> Costs are for emission testing:

Hot Soak plus 24 hour diurnal	10 @ \$1,450	\$14,500
Running Loss	3 @ \$2,700	<u>8,100</u>
		\$22,600