

State of California
AIR RESOURCES BOARD

RESEARCH PROPOSAL

Resolution 07-4

January 25, 2007

Agenda Item No.: 07-1-4

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; and

WHEREAS, a research proposal, number 2623-254, entitled "Emissions of HFC-134a from Auto Dismantling and Recycling," has been submitted by the Foundation for California Community Colleges; 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 2623-254 entitled "Emissions of HFC-134a from Auto Dismantling and Recycling," submitted by the Foundation for California Community Colleges, for a total amount not to exceed \$159,578.

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 2623-254 entitled "Emissions of HFC-134a from Auto Dismantling and Recycling," submitted by the Foundation for California Community Colleges, for a total amount not to exceed \$159,578.

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 \$159,578.

I hereby certify that the above is a true and correct copy of Resolution 07-4, as adopted by the Air Resources Board.



Lori Andreoni, Clerk of the Board

ATTACHMENT A

“Emissions of HFC-134a from Auto Dismantling and Recycling”

Background

A regulation adopted by the U.S. EPA requires any person who dismantles a vehicle to recover for recycling any HFC-134a (a potent greenhouse gas) that remains in the vehicle's air conditioning system. However, there is anecdotal evidence suggesting that proper recovery often does not occur.

State assistance to the U.S. EPA in enforcing the recovery requirement is a proposed Greenhouse Gas Reduction Strategy in California's Climate Change Protection Plan. The potential for reducing emissions of HFC-134a needs evaluation before a plan for such assistance can be proposed.

Objective

The objectives of the proposed work are to: 1) determine by examining Department of Motor Vehicles data the numbers of vehicles dismantled annually in California, by vehicle variables such as age, weight class, and make; 2) determine with field measurements the amounts of HFC-134a present in the air conditioning systems of vehicles awaiting dismantling.

Methods

The Foundation for California Community Colleges will count and characterize the population of vehicles that is dismantled annually by obtaining, analyzing and summarizing data provided by all 1500 licensed dismantlers in the state. Foundation for California Community Colleges will also design and conduct an inspection and sampling campaign at dismantling sites to quantify the amount of HFC-134a that remains in vehicles that are destined for dismantling.

Expected Results

The project should produce a reliable, empirically-based estimate of the annual amount of HFC-134a that is available for recovery in vehicles that are dismantled or salvaged in California. Also, it should quantify the vehicles that are dismantled annually in California and characterize them by age, type, reason for retirement, and any distinction among various vehicle categories in the amount of refrigerant available for recovery.

Significance to the Board

The results will provide needed input to the ARB staff's assessment of the potential value of committing resources to cooperate with the U.S. EPA in enforcing the federal requirement to recover HFC-134a.

Contractor:

Foundation for California Community Colleges

Contract Period:

12 months

Principal Investigator (PI):

Cynthia Stover

Contract Amount:

\$159,578

Basis for Indirect Cost Rate:

The 10 percent rate used in this proposal is the same rate that applies to University of California campuses. The Foundation for California Community Colleges falls under the guidelines for University of California campuses.

Past Experience with this Principal Investigator:

ARB has not previously contracted with the Foundation for California Community Colleges. Cynthia Stover was a research contract manager in Research Division at ARB and a Staff Programmer Analyst for the Bureau of Automotive Repair. She is currently the Director of Software systems at the Foundation for California Community Colleges.

Prior Research Division Funding to for California Community Colleges:

Year.	2006	2005	2004
Funding	\$0	\$0	\$0

BUDGET SUMMARY

Foundation for California Community Colleges

Emission of HFC-134a from Auto Dismantling and Recycling

DIRECT COSTS AND BENEFITS

1.	Labor and Employee Fringe Benefits	\$119,102
2.	Subcontractors	\$ 0
3.	Equipment	\$ 10,537
4.	Travel and Subsistence	\$ 15,390 ¹
5.	Electronic Data Processing	\$ 0
6.	Reproduction/Publication	\$ 0
7.	Mail and Phone	\$ 0
8.	Supplies	\$ 1,000
9.	Analyses	\$ 0
10.	Miscellaneous	\$ 0

Total Direct Costs \$146,029

INDIRECT COSTS

1.	Overhead	\$ 13,549
2.	General and Administrative Expenses	\$ 0
3.	Other Indirect Costs	\$ 0
4.	Fee or Profit	\$ 0

Total Indirect Costs \$ 13,549

TOTAL PROJECT COSTS

\$159,578

¹ Extensive day travel will be needed for the vehicle sampling work—up to 180 visits to dismantling sites that could average 120 miles round-trip distance from the FCCC work places.