State of California
AIR RESOURCES BOARD

Resolution 06-48

December 7, 2006

Agenda Item No.: 06-11-2

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 proposal Number 46, entitled "Mobile Off-Road Retrofit SCRT System Demonstration Project," has been submitted by Johnson Matthey, Inc., in response to the 2006 Innovative Clean Air Technologies (ICAT) Program solicitation;

WHEREAS, the proposal has been independently reviewed for technical and business merit by highly qualified individuals; and

WHEREAS, the Research Division staff and the Executive Officer and Deputy Executive Officers have reviewed and recommend for funding:

> Proposal Number 46, entitled "Mobile Off-Road Retrofit SCRT System Demonstration Project," submitted by Johnson Matthey, Inc., for a total amount not to exceed $70,000.

NOW, THEREFORE BE IT RESOLVED, that the Air Resources Board, pursuant to the authority granted by Health and Safety Code Section 39703, hereby approves the following:

> Proposal Number 46, entitled "Mobile Off-Road Retrofit SCRT System Demonstration Project," submitted by Johnson Matthey, Inc., for a total amount not to exceed $70,000.

BE IT FURTHER RESOLVED, that the Executive Officer is hereby authorized to initiate administrative procedures and execute all necessary documents and agreements for the efforts proposed herein, and as described in Attachment A, in an amount not to exceed $70,000.

I hereby certify that the above is a true and correct copy of Resolution 06-48, as adopted by the Air Resources Board.

Lori Andreoni

Lori Andreoni, Clerk of the Board

ATTACHMENT A

Innovative Clean Air Technologies (ICAT) Grant Proposal:

"Mobile Off-Road Retrofit SCRT System Demonstration Project"

Background

Johnson Matthey has developed a system called SCRT, which is a combination of selective catalytic reduction (SCR) and a continuously regenerating trap. The SCRT system is used to reduce NOx, PM, CO, and hydrocarbon emissions from diesel engines. The Johnson Matthey system is currently undergoing ARB verification for on-road applications. The system has not yet been demonstrated in off-road diesel vehicles. The purpose of this ICAT project would be to demonstrate the system in off-road motor vehicles.

Objective

The objective of the project will be to demonstrate the emission reduction effectiveness of the Johnson Matthey SCRT system in off-road diesel vehicles.

Methods

Johnson Matthey will demonstrate the SCRT system for mobile off-road retrofit applications by installing the system on vehicles operated by the Los Angeles County Sanitation District. System emission reduction performance and durability will be monitored during 1000 hours of operation on these vehicles.

Expected Results

It is expected that the SCRT system will be demonstrated as a viable emission control technology for off-road motor vehicles.

Significance to the Board

The demonstration of the emission reduction effectiveness of the SCRT system for off-road motor vehicles would allow the verification of the technology by ARB and would provide another emissions control option for off-road vehicle operators to meet the ARB retrofit requirements.

Applicant: Johnson Matthey Corporation

Project Period: April 2007 to April 2008

Principal Investigator: Urszula Miezio

ICAT Funding: $70,000

Co-funding: $84,400

Past Experience with This Principal Investigator:

None.

Prior ICAT Funding to 2006

Year	2005	2004	2003
Funding	0	0	0

BUDGET SUMMARY

Johnson Matthey, Inc.

"Mobile Off-Road Retrofit SCRT System Demonstration Project"

Direct Costs and Benefits	**ICAT**	**Total**
1. Labor	$ 60,000	$ 86,400
2. Employee Fringe Benefits	$ 0	$ 0
3. Subcontractors	$ 10,000	$ 10,000
4. Equipment	$ 0	$ 40,000
5. Travel and Subsistence	$ 0	$ 18,000
6. Materials and Supplies	$ 0	$ 0
7. Other Direct Costs	$ 0	$ 0
Total	$ 70,000	$154,400
Indirect Costs		
1. Overhead	$ 0	$ 0
2. Other Indirect Costs	$ 0	$ 0
Total	$ 0	$ 0
Total Project Costs	**$70,000**	**$154,400**