

NTRD Program Disclaimers

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**Texas Commission on Environmental Quality
New Technology Research & Development (NTRD) Program
Monthly Project Status Report**

Contract Number: 582-5-70807-0006

Grantee: Railroad Commission of Texas

Date Submitted: December 9, 2005

Report for the **Monthly** period:

Starting Date: November 1, 2005

Ending Date: November 30, 2005

Section I. Accomplishments *(Please provide a bulleted list of project accomplishments as well as a description of their importance to the project.)*

1. Lubrizol, one of the equipment manufacturer partners in the project, has requested that the testing of the systems begin using the General Motors 4.3 liter V6 engine, as they have completed their own testing of the system on a four-cylinder engine and have received CARB approval on the four-cylinder engine. The GM 4.3 liter engine will test the system's capabilities in a different manner due to its layout. If the test demonstrates that the GM 4.3 complies with CARB verification standards, that will be good news for the retrofit market, both because other engines will be easier to certify, and because the GM 4.3 represents a substantial share of the installed base.
2. Precision Governors is no longer part of the project. They have sent us formal notice that the company has decided not to market a retrofit fuel system.
3. NETT Technologies is the marketer of Safe Controls' (El Paso, Texas) retrofit fuel system and a marketer of standard air valve system. NETT has notified the Railroad Commission that they have completed their testing plan, sent it to CARB, and it has been approved. They are ready to join the project and start the testing of their systems. We are waiting to review a copy of the CARB approval. NETT has been informed that at the request of Lubrizol we are preparing to test the GM 4.3 liter engine first. NETT has been asked to furnish equipment for testing suitable for testing on that engine. They are modifying their system to accommodate the greater fuel requirements of the larger V6 engine. Because of their use of standard hardware and NETT's background in catalyst development, the installed price of their system may be quite attractive.
4. A third potential manufacturer participant, Motive Ventures of Boerne, Texas, has not followed up on their original interest. To our knowledge they have not submitted a test plan to CARB for approval. Also, at the time of this report they have not responded to our request for additional information.
5. Carnot Emission Services of San Antonio, Texas, was the only company that responded to the Railroad Commission's Invitation for Bids to conduct verification emissions testing under the NTRD program. Carnot met the requirements of the invitation to bid. A notice of contingent award has been sent to Carnot. NOTE: CARB has a policy not to formally certify testing laboratories. Instead, they require testing labs to guarantee the accuracy of the test results submitted to them. If CARB has questions, they then may audit the test results. EPA has a similar approach to emissions testing labs. Therefore, no formal

written approval of Carnot will be forthcoming to TCEQ from CARB or EPA. However, Carnot is a highly credible emissions laboratory whose principal, Steve Griffin, P.E., is a former Southwest Research Institute forklift emissions test engineer, and which is currently submitting emissions test results to both CARB and EPA under the conditions described above.

Indicate which part of the Grant Activities as defined in the grant agreement, the above accomplishments are related to:

Task I. Select partners

2.1.1 Select retrofit fuel systems

2.1.5 Submit names of verification partners and copies of the agreements

Task 2. Initiate CARB verification process

2.3.1 Select testing laboratory

Section II: Problems/Solutions

<p>Problem(s) Identified</p> <p><i>(Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)</i></p>	<p><i>Safe Controls has not communicated their interest in the program in the last 4 months.</i></p> <p><i>AFRED has been notified that Precision Governors has decided not to enter the low-NOx retrofit fuel system market for forklifts.</i></p>
<p>Proposed Solution(s)</p> <p><i>(Please report any possible solution(s) to the problem(s) that were considered/encountered)</i></p>	<p><i>AFRED is working with NETT management to include their systems in the RRC/NTRD testing program.</i></p>

<p>Action(s) Conducted and Results</p> <p><i>(Please describe the action(s) taken to resolve the problem(s) and its effect)</i></p>	<p><i>NETT has agreed to participate in the program.</i></p>
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Section III. Goals and Issues for Succeeding Period: *(Please provide a brief description of the goal(s) you hope to realize in the coming period and identify any notable challenges that can be foreseen)*

1. *Secure TCEQ written approval to use Carnot Emission Services as the laboratory for the program.*
2. *Receive additional documentation from Lubrizol indicating CARB approval of their testing plan for the GM 4.3L program; secure TCEQ approval to proceed.*
3. *Receive additional documentation from NETT indicating CARB approval of their testing plan for the GM 4.3L program; secure TCEQ approval to proceed.*
4. *Schedule test cell time; implement testing of one or both fuel systems on the GM 4.3L engine.*
5. *Contact Motive Ventures to clarify their plans.*



Date: December 9, 2005

Authorized Project Representative's Signature

NOTE: *Please attach any additional information that you feel should be a part of your report or that may be required to meet the deliverable requirements for tasks completed during this reporting period.*

1. *Notice of contingent award issued on December 2, 2005, to Carnot Emissions Services.*