

## **NTRD Program Disclaimers**

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

Contract Number: \_\_\_\_\_582-5-70807-0007\_\_\_\_\_

Grantee: \_\_\_\_\_Lamar University\_\_\_\_\_

Date Submitted: \_\_\_\_\_Number 15, 2006\_\_\_\_\_

Report for the Monthly period:

Starting Date \_\_\_October 15, 2006\_\_\_      Ending Date \_\_\_November 14, 2006\_\_\_

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

- **Analysis of NO<sub>x</sub> Control and DPF Regeneration Data Continued**

The project continued to perform detailed data analysis on the observed NO<sub>x</sub> and DPF regeneration data. In addition to data analysis, a new catalyst was prepared by adding more (twice) pre-activated Pt with SiC granule and foam. A series of DeNO<sub>x</sub> tests were carried out with the new catalyst and a significant reduction of CO formation was observed with a greater than 90 % of NO conversion.

- **Final Reports Being Prepared**

Three final project reports described in Tasks 4, 5, and 6 were started to be prepared. The reports are to summarize all the results from the project. The completion of these reports is expected to be on or before November 30, 2006. The reports will be submitted to TCEQ on November 30, 2006 to fulfill the project requirement.

- **One MS Thesis Completed**

A MS thesis entitled "Soot Oxidation and Diesel Particulate Filter Regeneration by Microwave Heating," has been completed with the support of this project. The thesis was authored by Mr. Daniel A. Rutman and the degree date is December 2006 from Lamar University. The financial support from TCEQ through this 2005 New Technology Research and Development Program has been acknowledged in the thesis.

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

The above accomplishments are related to Tasks 1, 2, 3, 4, 5 and 6 described in the Scope of Work of the project.

## Section II: Problems/Solutions

<p><b>Problem(s) Identified</b></p> <p><i>(Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)</i></p>	<p>None</p>
<p><b>Proposed Solution(s)</b></p> <p><i>(Please report any possible solution(s) to the problem(s) that were considered/encountered)</i></p>	<p>N.A.</p>
<p><b>Action(s) Conducted and Results</b></p> <p><i>(Please describe the action(s) taken to resolve the problem(s) and its effect)</i></p>	<p>N.A.</p>

**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)*

The goals for the final two weeks of the project are to:

1. complete the detailed analysis on the observed results from DPF regeneration experiments to establish optimal regeneration schemes and conditions;
2. complete the detailed analysis on the observed results from long-term NO<sub>x</sub> control experiments to establish optimal NO<sub>x</sub> reduction conditions; and
3. complete the preparation of the required technical reports.

The project is scheduled to be completed on November 30, 2006. The required reports described in Tasks 4, 5 and 6 will be submitted to TCEQ on November 30, 2006.



Date: \_\_\_\_\_ 11/10/06 \_\_\_\_\_

\_\_\_\_\_  
*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.*