

## **NTRD Program Disclaimers**

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**Texas Commission on Environmental Quality  
New Technology Research & Development (NTRD) Program  
Monthly Project Status Report  
GTI Project #20485**

Contract Number: 582-5-70807-0018

Grantee: Gas Technology Institute

Date Submitted: June 10, 2006

Report for the Monthly period: May 2006

Starting Date: May 1, 2006

Ending Date: May 31, 2006

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

Accomplishment	Importance to the Project
Testing and reassembly of components mentioned in previous month's reports has resulted in system leaks being found. Leak detection and repair is ongoing.	Component refurbishment and/or replacement is needed to assure reliability and to maximize efficiency of the system.
A likely deployment site has been determined. A revised site cost estimate is being prepared and will be submitted separately to TCEQ.	A site host that operates LNG-fueled vehicles is necessary for the successful demonstration of the on-site liquefier.
Engine Controller has been installed and is 90% completed (some additional testing and optimization remains)	Engine controller is important to allow for unmanned operation of the system on-site.
Refrigerant has been charged in the system. The formulation is still being optimized and the final composition of the mixed refrigerants system is still being determined.	The mixed refrigerant system charging is one of the key system components and is necessary to bring natural gas down to temperatures at which it becomes a liquid that can be used as a vehicle fuel.

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

Accomplishment	Grant Activity
Engine component replacements	Tasks 1-6
Demonstration site identification	Tasks 5
Engine Controller Installation	Tasks 1 & 4
Refrigerant Charging	Task 4

## 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>	<ol style="list-style-type: none"> <li>1) GTI is waiting for component parts that are on order.</li> <li>2) Locating an alternate field test site has taken significantly greater time and expense than initially estimated</li> </ol>
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<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>	<ol style="list-style-type: none"><li>1. The project timeline has slipped while awaiting component parts from one of our suppliers.</li><li>2. In order to prevent additional scheduling delays, GTI has identified an alternate field test site that will be proposed to TCEQ in a separate document.</li></ol>
<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>	<ol style="list-style-type: none"><li>1. GTI has requested interim project report time extensions.</li><li>2. Other contract modifications may be requested that will not change the project goals and objectives.</li></ol>

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)*

- Continue systems refinement, efficiency enhancements, and system optimization activities that were initiated during October.
- Reach agreement on deployment location and begin on-site permitting, gas supply, and operating groundwork. This item will most likely continue for the next reporting period.



Date: 6-10-06

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*Authorized Project Representative's Signature*

**J. Brian Weeks, Associate Director  
Hydrogen Energy Systems  
Gas Technology Institute**

**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.*