

NTRD Program Disclaimers

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

Contract Number: 582-5-70807-0018

Grantee: Gas Technology Institute

Date Submitted: October 9, 2005

Report for the Monthly period: September 2005

Starting Date : September 1, 2005

Ending Date: August 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
Kick-off meetings	<p>A series of initial planning meetings have been held in both Texas and in Des Plaines, Illinois to:</p> <ul style="list-style-type: none"> • Identify roles and responsibilities of all project partners • Review and define engineering activities related to Task 1-6 in the Project Scope of Work • Begin contract negotiations for purchasing equipment and for natural gas supply at the deployment site.
<p>GTI has received quotes for major system components including:</p> <ul style="list-style-type: none"> • Gas clean-up system heater • Refrigerant heat exchanger • Absorbent material for gas clean-up system • Valve train for gas clean-up system 	<p>GTI is evaluating cost, technical suitability, and timing of availability for different alternatives for these components. These components relate specifically to Tasks 1,2, and 3.</p>

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

Accomplishment	Grant Activity
Kick-off meetings	Tasks 1-6
Component review and quotes	Tasks 1,2, and 3

Section II: Problems/Solutions

Problem(s) Identified	
<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"> 1) Height of current refrigerant heat exchanger could present problems for transporting the unit from GTI's testing labs to its deployment site in Texas. 2) GTI is in discussions with H-E-B regarding its continuing availability as a host for the deployment of the liquefier.

<p>Proposed Solution(s)</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">1) The existing heat exchanger could be replaced with a shorter unit that performs comparably or the existing unit could be modified to mitigate transport problems.2) In the event that H-E-B is unavailable as a site host, GTI has, with H-E-B's concurrence, contacted potential alternative hosts for deployment in Houston and Dallas.
<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>	<ol style="list-style-type: none">1) GTI has solicited quotes for a heat exchanger design that is shorter, but retains the same technical specifications as the existing unit. The resulting initial quote included a production time of 48 weeks, making it an unsuitable option.2) GTI has assisted H-E-B in arranging negotiations with existing suppliers that could lead to greater flexibility to participate in this Project.

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)*

- Make decisions on major component configuration, order timing, vendor selection, and cost.
- Identify most likely deployment location and begin on-site permitting, gas supply, and operating groundwork.
- Resolve remaining issues on deployment location.



Date: 10-9-05

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.*