

NTRD Program Disclaimers

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

Contract Number: 582-5-65591-0001

Grantee: Catalytica Energy Systems

Date Submitted: 4/8/05

Report for the **Monthly** period: March, 2005

Starting Date 10/18/04

Ending Date 10/31/05

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

Task 2 Accomplishments:

- Task 2.2.2
 - Completed initial transient testing using a simulated FTP protocol (FTP cycle without motoring points). NOx conversion has been consistently above the 50% target. More FTP testing will be completed in April in order to build a statistically significant data base of NOx conversion over this cycle.
 - Completed an additional 200 hours of durability testing on the Mountain View CA stationary generator set to examine initial product durability. A total of 500 hours has been accumulated on this catalyst which includes 100 hours of accelerated contaminate testing (engine oil). Post test subscale performance results show acceptable XFP reductant (H2 and CO) generation and no decrease in catalyst lightoff temperature.
 - Completed the installation of the entire XononD on-road system on the CESI truck and performed an initial on-road shakedown. Figures 5 & show the unit installed on the vehicle.

Task 3 Accomplishments

- Task 2.3.1
 - Virtually all of the hardware required for the two Denton units has been ordered and received.
- Task 2.3.2
 - The assembly of the two Denton field units has begun. Figures 1-4 show assorted hardware for the Denton units at the component or subassembly level. The final assembly of both units will be completed by mid-April.

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

The accomplishments listed above are all part of Tasks 2 through 3 in the Grant Agreement.

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>(1) Hardware delays due to supplier issues will likely delay the installation of the units in Denton until early summer. Denton vehicle installation is now scheduled to begin during the third week in May.</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>(1) Work with suppliers to mitigate deliveries to insure no further schedule delays.</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>(1) Work with suppliers in process</i></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)*

- (1) *Complete Task 2 activities*
 - a. *Submit test report to close out this task*
- (2) *Complete Task 3 activities*
 - a. *Submit hardware report and photographs to close out this task*
- (4) *Begin Task 4 activities*
 - a. *Complete 100 hours of durability testing on one unit*



Authorized Project Representative's Signature

Date: 4/8/05

Attachment



Figure 1: Denton aft container with catalyst installed

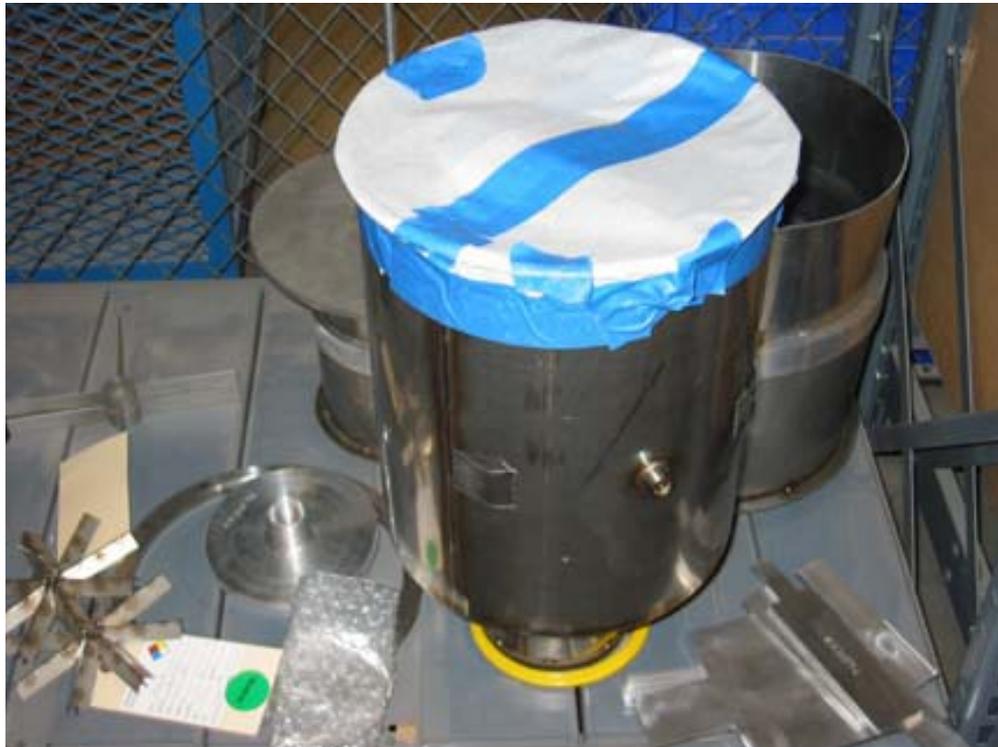


Figure 2: Assorted Denton hardware ready for build



Figure 3: Denton "head end" unit

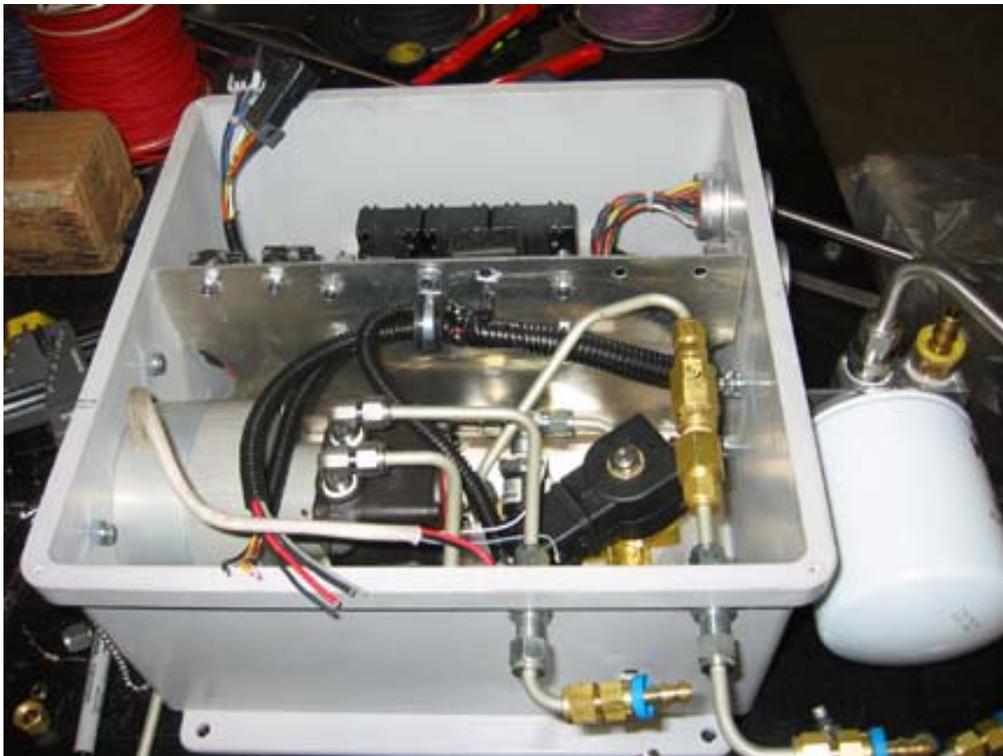


Figure 4: Denton fuel delivery and control box in final assembly



Figure 5: CESI truck mounted XononD with fuel delivery & control unit installed



Figure 6: CESI truck mounted XononD ready for first road test