

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

Contract Number: 582-11-13470-2019
Grantee: GE Transportation
Report for the **Date** September
Monthly period: August 1, 2012 – August 31, 2012 **Submitted:** 10, 2012

Section I. Accomplishments

Provide a bulleted list of project accomplishments as well as a description of their importance to the project.

- Task 2.3.1.2.a/b: For the month of August 2012, the primary activity for the development team has been the continuation of the July 2012 turbo matching for the 900 & 1000 revolution per minute (rpm) turbocharger ratings.
- Task 2.1.1.: During the period, the turbocharger mounting vibration test was completed on the test engine allowing for the verification of the designs ability to withstand the engines normal vibration operating range.

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

Task 2.3.1.2.a/b/c - The performance development will be used to develop various ratings for each engine configuration. The developed ratings will include, but are not limited to the following: a) 6L250, 900RPM 2009hp, b) 6L250, 1000RPM, 2232hp, c) 6L250, 1050RPM, 2344hp

*Task 2.1.1. - The PERFORMAING PARTY will develop and produce prototype assemblies to mount and operate a Tier 3 turbocharger on the existing L250 engine platform. This design work will include computer analysis and **structural testing** of the prototype **mounting components**.*

Section II: Problems/Solutions

Problem(s) Identified: Report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project

- a) There were some technical issues with the turbocharger matching during the changeover from the 1050 rpm rated package to the 900 rpm rated package. An error was made during the turbocharger installation for the 900/1000 rpm turbo configuration. Due to incorrect parts marking in inventory, the lab unknowingly installed the wrong turbine stator. This resulted in some lost time troubleshooting bad test results which eventually led to discovering the mistake.
- b) Also, the program is requesting higher priority for the necessary lab resources in order to complete our testing. In order to ensure that the program continues to move forward without delay, the program management team has engaged the lab management team to boost our priority in the lab.

Proposed Solution(s): Report any possible solution(s) to the problem(s) that were considered/encountered

- a) Moving forward, all inventory/parts installations will be approved by the project lead and verified against the bill of materials to ensure proper parts are installed.
- b) In order to stave off further delays with our testing, we have requested that the programs scheduled testing include “off-shifts” and the use of “overtime” if available.

Action(s) Conducted and Results: Describe the action(s) taken to resolve the problem(s) and its effect

- a) In order to gain testing time back for the above issues, the team completed vibration testing in parallel with turbo matching troubleshooting to reduce the impact to schedule.

Section III. Goals and Issues for Succeeding Period:

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 goal for the current period is to complete both the 900rpm rating and the 1000rpm ratings.

Date: September 10, 2012

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.*