

**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 Monthly period: June 1, 2012 – June 30, 2012 **Date Submitted:** July 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: Began turbo matching on the 1000 & 900 rpm rotating assemblies in parallel, and remotely, while also doing the engine ratings.
- Task 2.3.1.2. c: A final turbo configuration match was successfully completed for the 1050 rpm engine rating on the 6L250. Data has been collected to develop the EPA duty cycle needed in order to demonstrate compliance and to obtain final EPA certification for this rating.
- Task 2.1.4.1: Preliminary engineering review was conducted on first turbocharger performance data on the 6L250 1050rpm rating in order to finalize performance rating.

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 2.4.1.1- The PERFORMING PARTY will plan and prepare design reviews for each of the 8L250 and 6L250 engine configurations, to include all required additional components to retrofit the L250 engine family to meet EPA Tier 3 emissions levels.

Section II: Problems/Solutions

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

- a) No problems that would impact the progress at this stage of the development testing. During the initial phase of the 1050rpm rating development on the 6L250, the team overcame a minor turbo-speed issue. This kind of minor speed issue was anticipated in the development testing.

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

- a) This minor turbo speed issue required a solution of a different size nozzle ring.

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

- a) This nozzle ring change resolved the speed issue; the solution is applicable to other ratings.

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 the engineering review on the 1050rpm rating and complete at least 50% of the turbo matching/ratings development for the next engine rating in the test schedule.

Date: July 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.*