

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

Contract Number: 582-11-13473-2019
Grantee: Robert Bosch LLC
Report for the _____ **Date** _____
Monthly period: June 2012 **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.

- Investigation of particulate filter loading and regeneration including: using transient part of Houston cycle (typical tug boat driving cycle), for worst case loading to determine the max. soot loading of the filter; determination of the soot balance point using Houston Cycle; steady state point loading and regeneration in several engine map points; and evaluation of test data.
- Shipping of alternative selective catalytic reduction (SCR) catalyst from other supplier
- Preparation of SCR system (including dosing module, supply module, cooling lines, and wiring harness) for testing
- Start of SCR-system calibration
- Preparation of software diagnosis and diagnosis panel for infield testing

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

Phase 2 – Task 2: Final Design Changes, Measurement of Emission Reduction

- 2.1 Install After treatment System
- 2.2 Final design changes to system and emissions measurement with after treatment system

Section II: Problems/Solutions

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

- a) The backpressure of the after treatment system, especially of the SCR, is higher than expected. This causes a higher turbine inlet and outlet temperature and higher emissions.

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

- a) Replacement of SCR catalyst with a different substrate. Parts have arrived at Bosch facility in Farmington Hills, Michigan. Test will be started within the next few days. Further alternative solutions will be investigated to reduce the system backpressure.

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

- a) NA

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

- Calibration and fundamental investigations of SCR

Date: 8/10/2012

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.*