

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

Contract Number: 582-11-13515-2019

Grantee: Nett Technologies

**Report for the
Monthly period:** August 1, 2011 to August 31, 2011

**Date
Submitted:** September 15, 2011

Section I. Accomplishments

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

- Finalization of US Environmental Protection Agency test verification plan which is main key to finalizing Task 1
- Preliminary design of urea-SCR unit for stationary generator-sets including all weather applications.

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

- Task 1
- Task 2

Section II: Problems/Solutions

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

- a) Customers in this market expect very long performance warranties (8,000 to 16,000 hours)
- b) When urea-SCR system is exposed to low temperatures, urea can freeze
- c) Stationary generator sets often work unattended for long period of time. In this case, urea refill can become a challenge.

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

- a) Design of urea-SCR catalyst is done accordingly
- b) Need to maintain urea supply above freezing temperature
- c) Design includes a day-tank with automatic refill from a larger tote

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

- a) Larger catalyst volume is used in order to compensate for catalyst aging.
- b) Design includes heating lines and an engine coolant line to prevent freezing of urea lines and tanks.
- c) Urea day tank includes low and high switch levels that control refill pump. Secondary high level switch is also included as a fail-safe measure.

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

- Submit EPA verification test plan for approval.
- Finalize design.

Date: 9/15/2011

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.*