

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

Contract Number: 582-11-11144-3264
Grantee: Engine, Fuel, and Emissions Engineering, Inc. (EFEE)
Report for the Monthly period: August – November 2011 **Date Submitted:** December 16, 2011

Section I. Accomplishments

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

- Continued ongoing durability demonstration of locomotive selective catalytic reduction (SCR) system.
- Continued preparation of emission test plan.
- Revised Ride-Along Vehicle Emissions Measurement (RAVEM) hardware and software to perform locomotive emission measurements according to US Environmental Protection Agency (EPA) requirements.

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

- The first bullet pertains to section 2.2.1. of the Grant Activities:
“The PERFORMING PARTY will ensure that the test locomotive, SCAX #865, completes its current demonstration project in service at the Southern California Regional Rail Authority (SCRRA) and accumulates the required demonstration hours in preparation for certification testing.
- The remaining bullets pertain to Task 1, Section 2.1, “The PERFORMING PARTY will select an emission test facility and prepare a certification plan in consultation with EPA”

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 test locomotive, SCAX #865, was out of service for three months in order to replace the head-end power generator.
- b) Metrolink staff have informed us that they are presently short of locomotives, so that it will not be feasible for some time to remove SCAX 865 from service in order to send it to Boise for emission testing. Some of the locomotive shortage is due to Metrolink locomotives being taken out of service for overhaul by MotivePower – the same company that would be doing the emission testing. This issue needs to be resolved before we can finalize the emission testing plan.
- c) Reductions in force due to 2/3 reduction in sales from 2009 to 2010 (and continuing until April, 2011) have left surviving staff over-extended.

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

- a) SCAX #865 recently returned to service after replacing the head-end generator.
- b) We are scheduling a meeting with Metrolink staff to discuss the locomotive availability problem and possible solutions. Some possible solutions include: waiting for other locomotives to return to service; transferring the SCR system to another Metrolink locomotive already in Boise, following its overhaul by MotivePower; or securing EPA approval for EFEE's emission measurement system in some other manner than side-by-side testing in Boise.
- b) Sales and cash flow are recovering from the disastrous levels of 2010, and we expect to begin rebuilding staff in the near future.

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

- a) We are working to schedule the meeting with Metrolink when one of the key staff returns from vacation next week.

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

During December we plan to meet with Metrolink staff and develop a plan for carrying out the emission testing. That plan will be submitted with our next progress report in January 2012.

Date: December 16, 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.*