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

Contract Number: 58211111473264

Grantee: Alternative Motive Power Systems

Report for the Monthly period: May 2011

Date Submitted: June 10, 2012

Section I. Accomplishments

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

- Continued programming efforts and continued data acquisition programming. Programming will ensure proper communication between sub-systems and establish control over individual components for proper locomotive function. Data acquisition system will provide very precise feedback. This empirical data will allow us to make minor programming changes to improve locomotive function and efficiency.
- AMPS has ordered the Lithium battery technology from Corvus Energy. We have had multiple discussions with Corvus Engineers regarding pack arrangement and proper integration into our system.
- ATS will ship inverter rack assembly the week of June 10, 2012. Installation in cab/short-hood "module" will allow us to test system prior to shipment to Railserve.
- Implementing component & component drawing acquisition per schedule and have made significant progress toward incorporating component drawings into our Solid Works 2012 Locomotive Drawings.
- Ordered "AMPS Spec" power and reversing contactors. This minimizes the number of different voltages we have on board and improves overall functionality.
- Continued modification of cab/short-hood. We hope to ship completed and populated short hood to Railserve in June 2012 with all incorporated sub-systems having been tested.
- Axle generator is still being tested on a Railserve locomotive in Michigan. We have confirmed that the unit continues to provide improved signal and has had no durability issues. We will continue testing to ensure longevity. Incorporation of this new "AMPS designed and manufactured" axle generator will result in improved traction control and the elimination of "faults" due to poor signal quality.

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

- 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) Lead times on radiators and generator units may push the schedule out 30-60 days.

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

a) Look for options for other suppliers OR
b) Allow the schedule to slip and use the time to make refinements on other systems.

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

a) We are making every effort to speed up delivery and seek options for other suppliers.

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

- Continued software development
- Continue axle generator durability testing
- Priming of cab/short-hood module in and installation of sub-systems in preparation for shipping
- Design and initial fabrication of long-hood
- AMPS will continue ordering required components
- Continue rebuild of complete truck assemblies

Date: June 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.*