

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

Contract Number: 58211111473264
Grantee: Alternative Motive Power Systems (AMPS)
Report for the Monthly period: September 2012 **Date Submitted:** October 10, 2012

Section I. Accomplishments

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

- All major components are on-site in Longview, Texas, except for batteries which will arrive later in October 2012. This allows for installation of components on locomotive deck including: cab module, both engine/genset modules, battery module, traction motor blowers, etc.
- 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 (DAS) will provide very precise feedback. This empirical data will allow us to make minor programming changes to improve locomotive function and efficiency. Preliminary DAS has been completed successfully and programming is continuing on final iteration.
- Continuing to implement component & component drawing acquisition per schedule and have made significant progress toward incorporating component drawings into our Solid Works 2012 Locomotive Drawings.
- Axle generator is still being tested on a Railserve locomotive in Michigan with no problems and greatly improved signal over any units we could find for purchase. We have manufactured 5 additional units (4 for the locomotive plus one spare). 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.
- Engine/generator module/cube design has been completed and final assembly of the modules has begun.

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

- None

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

- None

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

- None

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
- AMPS personnel to be on-site in Longview, Texas, to oversee installation of major sub-systems
- Installation of all major subsystems on locomotive chassis by Railserve
- Establish final routing for cabling and wiring and finalize drawings for harnesses
- Develop a list for any remaining small miscellaneous parts and place order(s) for them
- Continue rebuild of complete truck assemblies and traction motors

Date: October 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.*