

**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:** February 2013 **Date Submitted:** March 10, 2013

**Section I. Accomplishments**

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

- All major components have been installed on locomotive
- Truck assemblies have been installed under the locomotive and high voltage cable to traction motors has been installed.
- 500 gallons of fuel is onboard
- 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. DAS web portal development has begun
- Continued incorporation of 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 five additional units (four 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.
- Sheet metal has been installed on top of long hood. Sides have been left off for better access to components

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

- Task #3

## **Section II: Problems/Solutions**

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

- Miscellaneous fabrication has taken longer than anticipated
- Work necessary to commission engines has taken longer than anticipated

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

- Continue work.

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

- Schedule has been modified with Railsolve input to ensure locomotive is commissioned prior to painting which has been scheduled for March 25, 2013.

## **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
- Continue systems check-out prior to engine commissioning
- Commission both John Deere engines
- Install remaining sheet metal on long hood
- Commission locomotive prior to paint; paint is scheduled for March 25, 2013.
- Continued development of web access for DAS

Date: March 10, 2013

---

*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.*