

## **NTRD Program Disclaimers**

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

Contract Number: 582-5-70807-0008

Grantee: Clean Air Worldwide GP, Inc.

Date Submitted: December 7, 2005

Report for the **Monthly** period:

Starting Date November 1, 2005

Ending Date November 30, 2005

**Section I. Accomplishments** *(Please provide a bulleted list of project accomplishments as well as a description of their importance to the project.)*

**Article 1. Objectives:** To obtain verification from the California Air Resources Board for the Dragon Fire 2010 Fuel System, a computer-controlled diesel fuel injection system.

During November we continued to work on the tasks necessary to prepare the DT466 engine and the Dragon Fire 2010 Fuel System for transport to California Environmental Engineering for Verification Testing.

**Article 2. Scope of Work**

**Task 1, Task Statement 2.1: Initiate CARB Verification Application Process**

Work continued on preparing the emission testing protocol for verification for submission to CARB. We currently await third party information prior to submission to CARB.

**Task 2, Task Statement 2.2: Map engine for the DF2010 Fuel System**

This task has been completed and work has continued to prepare the written report to TCEQ.

**Task 3, Task Statement 2.3: Manufacture a DF2010 Fuel System**

This task has been completed and work has continued to prepare the written report to TCEQ.

**Task 4, Task Statement 2.4: Install and fine tune the DF2010 on the DT466 Engine**

Most of the man hours spent during November are related to this task. The DF2010 has been installed on the DT466 engine. The Engine has been placed on the Dyno and is ready to begin the fine tuning process. The completion of this task has required extensive time from B & A Auto Electric.

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

## Section II: Problems/Solutions

<p>Problem(s) Identified</p> <p><i>(Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)</i></p>	<p>No additional problems have been identified.</p>
<p>Proposed Solution(s)</p> <p><i>(Please report any possible solution(s) to the problem(s) that were considered/encountered)</i></p>	
<p>Action(s) Conducted and Results</p> <p><i>(Please describe the action(s) taken to resolve the problem(s) and its effect)</i></p>	

**Section III. Goals and Issues for Succeeding Period:** *(Please 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 complete the following:

Task 1: Deliver a written report (2.1.4) including a copy of the proposed verification testing protocol (2.1.1) and a copy of the written notice from CARB (2.1.2) accepting the proposed testing protocol and authorizing the submission of an application for Verification.

Task 2: Deliver a written report (2.2.3) including the results of the initial engine mapping.

Task 3: Deliver a written report (3.3.3) including photos of the fully developed and completely constructed DF2010 Fuel System.

Task 4: Deliver a written report (2.4.3) including a report on initial performance (2.4.1.1), emission testing (2.4.1.2) and a report on the final installation of the DF2010 Fuel System (2.4.1) including photos.

Task 1: Upon completion of Task 1 (2.1.4), receive permission from TCEQ to proceed to CEE for Testing.

Task 5: (2.5.1) Upon completion of Task 1, confirm with CEE that dynamometer time is reserved for testing and Proceed under Task Statement 2.5. Proceed with Verification Testing at CEE.

Tom C Bana  
Authorized Project Representative's Signature

Date: 12/7/05

**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.*