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

Performing Party – WOW Energy Inc. I.D. 68-0554788

Contract Number: **TCEQ New Technology Research and Development Grant Contract 582-5-70807-0010**

Grantee: **TCEQ**

Date Submitted: **May 9th, 2006**

Report for the **Monthly** period:

Starting Date **July 1st 2006** Ending Date **July 31st 2006**

Section I. Accomplishments

- **The month of July was spent testing the FFGC unit at the AES Deepwater facility.**
- **Varying additives were tested to ascertain the optimum operating medium**
- **Data from testing provided consistent results and pollution levels were reduced as planned.**

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

Task One: Test Site Selection
(July 14th 2005 to September 8th 2005)
Commenced January 3rd 2005 and is 100% complete

Task One: A contractual detailed agreement with AES Deepwater is complete. Test Plan and Safety Execution which is complete including the final determination of the chemicals to be used. WOW personnel continue to have a presence on AES Deepwater facilities and have now begun working towards the second installation at Texas Municipal Power Authority's (TMPA) coal burning facility in Carlos, TX. Final date for commencement of testing has been delayed resulting from late arrival of unit to Houston and timetable conflicts with AES Deepwater arising from delay. Holcim, Midlothian testing discussions are continuing but Texas Municipal Power Authority's (TMPA) coal burning facility in Carlos, TX has replaced this plant as the second testing facility.

2.1.1.1 The baseline flue gas analysis and testing procedures are complete subject to site testing.

2.1.1.2 The expansion of testing sites and agreements continues beyond the initial 2 sites.

2.1.1.3 Shop Testing took place on October 3, 2005 at the Eisenmann Corporation facilities and the unit passed all tests. The unit is now in the Houston area.

2.1.1.4 Safety planning is complete.

2.1.1.5 Texas Municipal Power Authority's (TMPA) coal burning facility in Carlos, TX is now the second test site.

Completion of Task One is complete.

Task Two: FFGC Pilot Plant Design
(July 14th 2005 to November 2nd 2005)
Commenced April 15th 2005 and is 100% complete.

2.2.1.1 The modifications to the existing scrubber design is complete.

2.2.1.2 The design of the serpentine section of the second stage is complete.

2.2.1.3 Vendors and specific equipment for UV components is complete.

2.2.1.4 The definition of the size and number of the FFGC-PP chemical additive vessels is complete.

2.2.1.5 The definition of the size and number of by product vessels in complete and has been relayed to AES Deepwater. Existing plant storage and treatment systems review is complete.

2.2.1.6 The FFGC-PP systems and subsystems are all procured.

2.2.1.7 The type of semi-trailer has been selected for transportation.

2.2.1.8 The design of the electrical and instrumentation systems is complete.

2.2.1.9 The control system and control logic design is complete.

2.2.1.10 The final layout drawings including the trailer mounting details is complete.

Task Three: Fabrication & Construction
(July 14th 2005 to January 26th 2006)
Commenced May 1st 2005 and is 100% complete.

Eisenmann has completed the unit construction based on our submitted production schedule. Wow Energy, Inc. has approved the Eisenmann Quality Control and Inspection Plan.

2.3.1.1 The selection of major component suppliers is complete and major procurements are complete.

2.3.1.2 The baseline production schedule is approved.

2.3.1.3 Quality Control and Inspection Plan review is complete.

2.3.1.4 The final construction drawings release is complete.

2.3.1.5 The shop test plan draft is complete.

2.3.1.6 As-built drawings are complete.

2.3.1.7 Conduct shop test successfully completed.

Task Four: Operating and Test Plan
(July 14th 2005 to January 26th 2006)
Commenced May 1st 2005 and is 100% complete.

Wow Energy has selected the chemical additives to be used in the FFGC-PP. The initial flow rates and quantities have been determined and used to size the pumps, sumps and vessels.

2.4.1.1 Task complete.

2.4.1.2 The chemical additives have been selected, task complete.

2.4.1.3 The Safety Execution Plan is complete.

2.4.1.4 The initial chemical quantities and storage requirements are complete for AES Deepwater.

2.4.1.5 As the FFGC-PP design basis was to recycle the used solutions and by-products, there should be very little waste or by-product. We are analyzing and quantifying the amount of by-product for each test site.

2.4.1.6 The analysis and quantity of by-products for each test site continues to be developed.

2.4.1.7 Final baseline of the Test Plan continues to be developed.

Task Five 80% complete

2.5.1.1 The unit was successfully constructed on the AES Deepwater facility and was hooked up to the flue to enable testing to begin. CEMS units had to be calibrated, measurement accuracy, software and probes were tested. Flow rates from flue gas were established and additional work had to be undertaken on pumps, ducting, flow meters and other equipment to enable good repeatability in the testing procedures and results.
Testing of the unit began at the end June 2006.
Data from testing provided consistent results and pollution levels were reduced as planned.

Task Six is scheduled to commence in August 2006

Task six is dependant on results of testing for each site and specific full scale designs will be undertaken following testing.

Task Seven is ongoing throughout the project commencing on January 3rd 2005.

Section II: Problems/Solutions

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

Proposed Solution(s) *(Please report any possible solution(s) to the problem(s) that were considered/encountered)*	
Action(s) Conducted and Results *(Please describe the action(s) taken to resolve the problem(s) and its effect)*	

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)*

- ***Testing to conclude in mid August 2006.***
- ***Varying types and concentrations of chemicals will be used to optimize the pollution reduction capabilities of the unit for the AES Deepwater site.***
- ***Independent testing of results to take place toward the middle of August.***

*Martin Brau*_____ Date: *10 July, 2006*_____

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.*

TCEQ New Technology Research and Development Grant
Contract 582-5-70807-0010
Performing Party – WOW Energy Inc. I.D. 68-0554788
Notice to Proceed Issued July 14th 2005

Narrative

Tasks One, Two, Three and Four are complete and the unit is now in the Houston area. Testing of the unit was successful. Task Seven is ongoing in accordance with the above reports. Tasks Five began in mid April 2006. Task 6 will commence as soon as data is available following site testing.

In accordance with the contract, we will continue to hold monthly project reviews, as well as, day to day project discussions. We are now focused the completion of the tests on the AES Deepwater facility.