

NTRD Program Disclaimers

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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 **May 1st 2006** Ending Date **May 31st 2006**

Section I. Accomplishments

- **Completed the construction of the Final Flue Gas Cleaning Pilot Plant and the unit is now at the AES Deepwater facility.**
- **WOW Energy, Inc. personnel have been working on site at the AES Deepwater facilities to construct the unit on-site and to hook up the unit to the flue prior to beginning first testing.**
- **Testing equipment has been purchased and operating procedures and software interfaces tested. Independent third party testers have been selected.**

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 is scheduled to commence in October 2005

2.5.1.1 The unit is now in the Houston area at the AES facility and the final construction is taking place on site. The month of May 2006 was spent constructing the unit on site and putting in place the connections between the AES flue and the FFGC unit. The hook up of the unit took considerably longer than anticipated. The hook-up is now almost complete and all other requirements to begin testing are in place.

Task Six is scheduled to commence in December 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

<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><i>Hook-up to the flue at AES Deepwater proved to take longer than anticipated.</i></p>
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<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>	<p><i>Problem has been addressed and hook-up is almost complete.</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)*

- ***Final construction and hook up began in mid April 2006 and testing will begin in June 2006.***
- ***We are working on the Holcim test site issues but Texas Municipal Power Authority (TMPA) coal burning facility in Carlos, TX is now the second test site. Other sites have been identified and a strong interest continues to take place for further testing with the unit.***
- ***We have finalized the contractual agreement between AES Deepwater and Wow Energy for the testing at AES. The two attachments (Test Plan and Safety Execution Plan) are complete.***
- ***We are drafting a Letter of Intent between Wow Energy and our other test site candidates which we plan on signing and moving into contractual agreement negotiations.***
- ***Flue gas instrumentation port locations and equipment has been delivered personnel training continues to take place, construction of the unit is taking place.***

Martin Brau _____ Date: 10 May, 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.

The unit was assembled / constructed in the Houston are prior to its hook-up at AES Deepwater and a test of the unit was undertaken. Detailed review of all additives to be used was also undertaken.

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 on site installation and testing of the unit.