

NTRD Program Disclaimers

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1/10/06

**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: **January 9th, 2006**

Report for the **Monthly** period:

Starting Date **December 1st 2005**

Ending Date **December 31st 2006**

Section I. Accomplishments

- Completed the construction of the Final Flue Gas Cleaning Pilot Plant and the unit is now being prepared for shipping in January 2006.
- WOW Energy, Inc. personnel have been working on site at the AES Deepwater facilities to prepare the connections, etc. for the installation of the unit to begin first testing.
- Details of testing equipment, methodology and specifications were analyzed in depth and interviews were held with various manufacturers of equipment. Testing equipment has been selected and is being shipped to Houston. Independent third party testers are also in the process of being selected.
- Key personnel required during hook-up and testing have been identified and dates are being finalized.
- WOW Energy personnel have recruited and a project manager who will be responsible, under supervision, of the FFGC unit is now working full time. Training of personnel on the equipment has begun.

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 97% complete

Task One: A contractual detailed agreement with AES Deepwater is complete with the exception of the Test Plan and Safety Execution which is almost complete pending the final determination of the chemicals to be used. WOW personnel continue to have a presence on AES Deepwater facilities. Date for initiation being finalized to begin testing in January 2006. At Holcim, Midlothian testing discussions are continuing but as mentioned above we have initiated discussions with additional candidates focusing on those that are coal power plants.

- 2.1.1.1 The baseline flue gas analysis and testing procedures have been developed and detailed procedures are close to completion. This data has been used in the selection of the emissions analyzer equipment. Equipment analyzer equipment selection is complete and is being shipped to Houston for delivery in early January 2006. The Company has also looked at the possibility of incorporating mercury testing capabilities at some stage in the future. A strong interest has been shown by various plants to test for the removal of mercury.
- 2.1.1.2 The expansion of testing sites and agreements continues.
- 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 being prepared for shipping to Houston.
- 2.1.1.4 Safety planning continues and is close to completion.
- 2.1.1.5 Holcim may be replaced in the testing program by either Twin Oaks or Gibbons Creek. There has been strong interest for further testing at other sites, including possible mercury testing.

Completion of Task One is almost complete.

**Task Two: FFGC Pilot Plant Design
(July 14th 2005 to November 2nd 2005)
Commenced April 15th 2005 and is 99% 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 is 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 25% 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 almost 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 Delivery and installation. The unit is ready and is being prepared for delivery to Houston in January 2006.

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>We continue to experience a delay with Holcim.</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><i>We have meet with Sempra Twin Oaks and TMPA Gibbons Creek for discussions on entering their respective power plants as test sites. Both plants were very interested in participating.</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>We now have two additional flue gas characteristics to work with. AES Deepwater uses petcoke as fuel. Twin Oaks is a mine mouth lignite power plant and Gibbons Creek uses Power River Basin coal as fuel.</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)*

- *We are working with AES for delivery, hook up and testing of the unit in January 2006.*
- *We are working on the Holcim test site issues but now have two additional sites under review. 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 almost 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 is being delivered in January 2006 and personnel training is taking place early in January 2006.*



Authorized Project Representative's Signature

Date:

1/9/06

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**

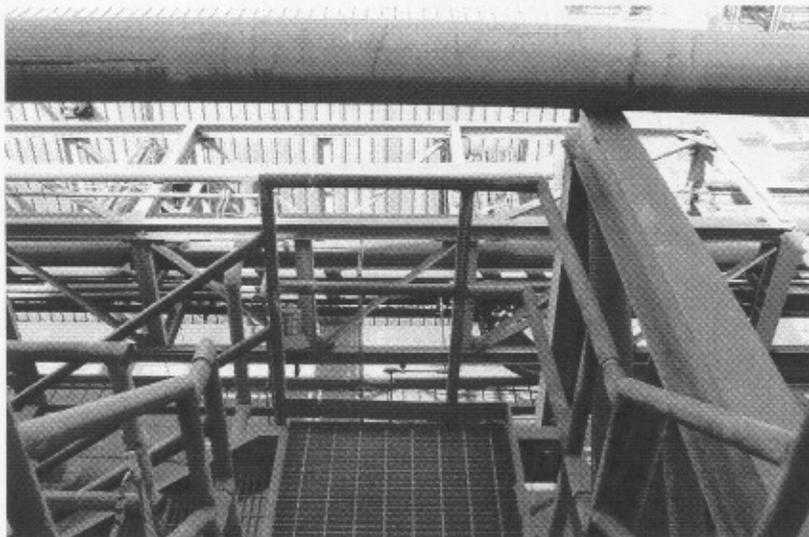
Narrative

Task One is now complete and a date for the unit to be shipped to Texas is being finalized for January 2006. Testing of the unit was successful. Tasks, Two, Three, Four and Seven are ongoing in accordance with the above reports. Task Five is dependant of final shipping schedule of unit. Task 6 will commence as soon as data is available following site testing.

The Wow Energies project team has held continuous discussions with Eisenmann during the construction of the FFGC-PP. This part of the project is now complete other that site installation at AES. Wow has been pleased with the quality of the work and product and is eagerly anticipating site testing. The Company continues to hold discussions on installation and operational procedures and now has personnel working on site at AES Deepwater ahead of delivery and installation of the unit.

In accordance with the contract, we will continue to hold monthly project reviews, as well as, day to day project discussions. We are focused on finalizing our Test Plan and Safety Execution Plan, as well as, lining up our second test facility.

Photographs (Site of first FFGC installation at AES Deepwater)



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