

TECHNICAL PROGRESS REPORT #1

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Mercury Specie and Multi-Pollutant Control

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Acknowledgment

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Abstract

This report is the first quarterly Technical Progress Report submitted by Pegasus Technologies, Inc., under Award Identification Number, DE-FC26-06NT42389 for the effort entitled “Mercury Specie and Multi-Pollutant Control.

This report is the first of the required reports listed in Attachment B Federal Assistance Reporting Checklist, part of the Cooperative Agreement. This report covers the award period from start of project to June 30, 2006 and the efforts within the first budget period which include among other items the installation of advanced sensors and optimization systems, capture of as found baseline data, and beginning and completion of parametric testing during that period.

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1 Introduction

This project was awarded to demonstrate the ability to affect and optimize mercury speciation and multi-pollutant control using non-intrusive advanced sensor and optimization technologies. The intent is to demonstrate plant wide optimization systems on a large coal fired steam electric power plant in order to minimize emissions specifically including mercury while maximizing the efficiency, and maintaining saleable byproducts of the plant as an electricity producer. Advanced solutions utilizing state of the art sensors and neural network based optimization and control technologies will be used to maximize the portion of the mercury vapor in the boiler flue gas which is oxidized or captured in particle bonds resulting in lower uncontrolled releases of mercury.

Budget period 1 is defined in the scope as the design period. The formal scope deliverables for budget period 1 include the installation of all sensors, design of software system, and establishment of the as-found baseline, conducting parametric testing and producing operating and test metrics for pre-project and post-project data comparison, as well as the required project management steps including the budget period 1 review meeting.

This report covers the start of the project through the first formal quarter's end date of June 30. The project was approved from review committee in January 2006, and the Cooperative Agreement No. DE-FC-06NT42389 formally signed by all parties on April 18, 2006.

Pegasus/NeuCo is shouldering 61% of the total project cost; while DOE is providing the remaining 39%. The DOE requires repayment of its investment. This repayment will result from commercial sales of the products developed under the project. NRG Texas (formerly Texas Genco) is contributing the host site, human resources, and engineering support to ensure the project's success.

2 Executive Summary

Pegasus/NeuCo has started the project under this first reporting period and as such is on track with initial progress as intended. The project scope of work entails the installation and demonstration of sensors and optimization software in 6 technology packages as well as the required Project Management tasks. Many of the sensors and optimizer technology that will be installed are utilized across the modules; therefore, they have been included under the module in which they are most used. The technology packages as defined in the CA for this project include:

2.1 Intelligent Fuel Management System (FMS)

The FMS is composed of the Combustion Optimization System, the Ready Engineering Coal Fusion System, and SABIA's elemental analyzer.

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with the subvendors of this task. The Sabia elemental analyzer was manufactured to the job site requirements and physically mounted into its location during this reporting period.

Pegasus/NeuCo worked to understand the Limestone fuel delivery system usage and requirements including the points on input data.

2.2 Mercury Specie Control System:

The Mercury Specie Control System includes the boiler area optimization, sensors from ZOLO, PS Analytical, and Triple 5; Mercury emissions will be measured through Continuous Emission Monitors (CEMs) by PS Analytical

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with the subvendors of this task.

The Zolo Laser Spectroscopy Analyzer was manufactured to the job site requirements and physically mounted into its location during this reporting period. NRG Texas Limestone personnel along with Zolo and Pegasus personnel pulled and physically installed communications fiber and all sensor fiber optic runs during this period.

The Triple 5 coal flow sensors were physically mounted into its location during this reporting period.

Pegasus engineers working with NRG Texas sited the locations for the Continuous Emission Monitors (CEMs). Limestone installed the access flanges during the outage. PS Analytical has designed the sensors and cabinetry for the site and has begun construction.

2.3 Advanced Electrostatic Precipitator (ESP) Optimization

Advanced Electrostatic Precipitator (ESP) Optimization System: The ESP Optimization System is composed of a Carbon-In-Ash (CIA) virtual online analyzer, a CIA sensor from ABB, and ESP Optimization software.

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with the subvendor of this task. The ABB Carbon-In-Ash (CIA) was manufactured to the job site requirements and physically mounted into its location during this reporting period. Initial sensor signals were being received locally on the boiler, a first as a lignite installation.

2.4 System Advanced Intelligent Soot Blowing (ISB) System:

Advanced Intelligent Soot Blowing (ISB) System: The ISB system is composed of Pegasus' Intelligent Sootblowing software. Note that this module was previously demonstrated, and does not constitute demonstration technology.

Pegasus/NeuCo worked to understand the Limestone sootblowing equipment and requirements.

2.5 Advanced Flue Gas Desulfurization (FGD) Optimization System:

Advanced Flue Gas Desulfurization Optimization System: The FGD Optimization System is composed of Pegasus' FGD Optimization software.

Pegasus/NeuCo worked to understand the Limestone FGD equipment and requirements.

2.6 Intelligent Optimization:

Intelligent Plant (Unit Optimization): The Pegasus i-Plant Optimization System will arbitrate among the solutions for the above systems.

Architecture for the overall systems design including communications architecture, DCS point access, and all advanced sensor inputs was designed and implementation was begun.

2.7 Project management required activities

Project management required activities were completed on or ahead of schedule for the following items:

- The Communications Plan was submitted and approved
- The weekly and monthly updates were issued accordingly during the period
- The Project Evaluation Plan was properly submitted
- The Project Management Plan was properly submitted
- The Kickoff meeting was convened at NETL offices in Morgantown W.V.
- The first invoice was submitted, reviewed, and approved through the DCAA system and paid by DOE

3 Discussion

3.1 Discussion Overview

In this first reporting period from start of project through March 31, 2006, there have been no approach changes to the project from a scientific aspect; however there have been two organizational name changes to report. The first was the name change of Texas Genco to NRG Texas. NRG Texas and the Limestone site remain fully committed to the CCPI effort and fully stated so in their corporate releases as well as within private project meetings. All related contract documents related to this association have been review prior to and as part of the project kickoff meeting. These contracts remain fully in place with this name change. The second corporate change is the acquisition of Pegasus Technologies, Inc. by NeuCo Inc. The contracts have assumption paragraphs within the purchase and Pegasus Technologies, Inc. remains a wholly owned legal entity of NeuCo as covered in the NETL kickoff meeting and all subcontracts remain in place. NeuCo corporate and legal team are reviewing if there are any reasons to novate the agreement directly to NeuCo and that is reported as in process, however at this point the preliminary action is that there may be no requirement for change. One advantage of this transaction that we have begun investigating is if there are any additional tools that aid the project brought about by this combination.

A major effort during this period has been to begin this design phase with the development of the architecture and the pursuit of sensor technology outlined in the proposal. Good progress to that effort has been achieved. Below is a discussion organized by package that corresponds to those listed in the CA. Figure 1 shows the architecture of the packages as mapped to over the site schematic.

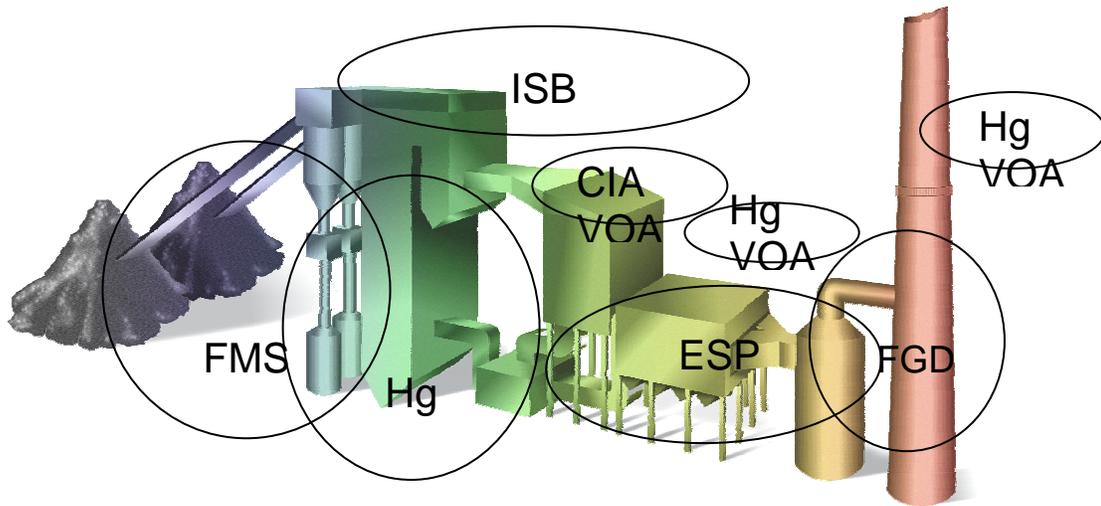


Figure 1 Areas of Optimization

3.2 Discussion by Package

The departments within Pegasus/NeuCo pursued their areas expertise to add detail to this architecture. Examples of what is reported in more detail below include the product management personnel executing the sub vendors of the sensor technologies. The Application engineers began discussions with site personnel to exchange specific detailed information about each area of the plant, and systems engineers began establishing the communication architecture for data capture.

3.2.1 Intelligent Fuel Management System (FMS):

The FMS system consists primarily of the area from the fuel pile to the entrance to the mills. The FMS primary subvendors are Sabia Inc. and Ready Engineering.

- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the FMS package.
 - ii. Review and discuss with Limestone staff critical items related to the area
 - iii. Review and assess the vendors related to the package.
 - iv. Negotiate sub vendor contracts with the vendors of appropriate technology
 - v. Issue purchase orders for those contractors meeting the criteria required.
 - vi. Begin installation engineering of selected sensor vendors
- b. Accomplishments for the past quarter were:
 - i. Pegasus completed all initial reviews and site inspections with the involvement and participation of Limestone personnel.
 - ii. Pegasus/NeuCo has reviewed with site the anticipated needs for the project in the FMS area and confirmed the Sabia elemental coal

analyzer as being the selected sensor for coal attributes. In house engineering defined the inputs required from the analyzer which include ash percentage and oxide constituents, S, C, H₂O, and BTU by resultant calculation.

- iii. Limestone participated in the engineering review for this section both in individual conferences held at site and on the phone as well as a formal functional specification meeting held at site.
- iv. The Sabia elemental analyzer was selected and ordered by Pegasus after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period. Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection.

The neutron source was licensed, ordered, cleared for site use, delivered, and installed for use on the analyzer.

The Sabia analyzer was subsequently manufactured and delivered to site during this period. Limestone personnel prepared the mounting location on belt 10A of the site.

Coal samples were gathered and analyzed then ran through the analyzer for first calibration requirements. One bug in the source positioning software was found and corrected by Sabia

Limestone personnel moved the equipment to the location and it has been physically installed and commissioned to produce an initial value. The calibration and subsequent confirmation of the values will occur later.

- v. Ready Engineering equipment was selected and ordered by Pegasus after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period. Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection.

A special on site detailed review of the fuel handling side was conducted by Ready Engineering with Pegasus and Limestone.

Ready Engineering is currently evaluating and designing the system.

3.2.2 Mercury Specie Control System:

The Mercury Specie Control System includes Pegasus' Virtual Online Analyzers (VOAs); sensors from ZOLO, PS Analytical, and Triple 5; Mercury emissions will be measured through Continuous Emission Monitors (CEMs) by PS Analytical

- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the Hg package.
 - ii. Review and discuss with Limestone staff critical items related to the area
 - iii. Review and assess the vendors related to the package.

- iv. Negotiate sub vendor contracts with the vendors of appropriate technology
- v. Issue purchase orders for those contractors meeting the criteria required.
- vi. Begin installation engineering of selected sensor vendors
- b. Accomplishments for the past quarter were:
 - i. Pegasus completed all initial reviews and site inspections with the involvement and participation of Limestone personnel.
 - ii. Pegasus/NeuCo has reviewed with site the anticipated needs for the area and confirmed the Triple 5 product as being the selected sensor for coal flow. In house engineering defined the communications method and retrieval.
 - iii. Limestone participated in the engineering review for this section both in individual conferences held at site and on the phone as well as a formal functional specification meeting held at site. The sensor technology locations are located on top of the site schematic shown in figure 2.

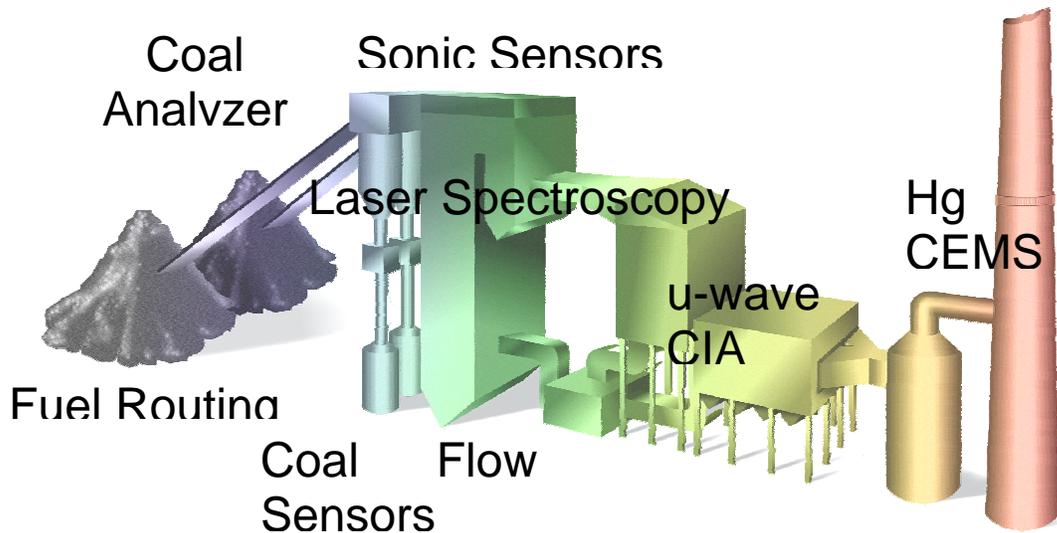


Figure 2 Advanced Sensor Areas

- iv. The Zolo Laser Spectroscopy Analyzer was selected and ordered by Pegasus after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period. Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection. Zolo was ordered and design reviews were held with concentration on fiber optic routing and pulling coordination. The Zolo system was subsequently manufactured and delivered to site

during this period. Limestone personnel prepared the mounting locations which included water wall penetrations, tube bends and refitting with proper lagging and insulation.

Laser alignment of the “throw” and “catching” sides were completed. Limestone personnel moved the equipment to the location and it has been physically installed and commissioned to produce an initial value. The final communication confirmation of the values will occur later.

- v. The Triple 5 coal flow sensors were selected and ordered by Pegasus after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period.

Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection. The T5 system was subsequently manufactured and delivered to site during this period. Limestone personnel prepared the mounting locations which included pipe preparations and power/signal routing. The equipment has been physically installed and commissioned to produce an initial value. The final sensing calibration is ongoing by T5

- vi. Mercury emissions were selected to be measured through Continuous Emission Monitors (CEMs) by PS Analytical. Pegasus ordered the system after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period. Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection.

These systems are currently under construction by PSA and were lagging schedule but should be shipped in August.

Limestone has ordered the appropriate sample line to link the sample port and sensor to the CEMS cabinets. Installation of the lines will occur in an upcoming period.

3.2.3 Advanced Electrostatic Precipitator (ESP)

The Advanced Electrostatic Precipitator (ESP) Optimization System is composed of a Carbon-In-Ash (CIA) virtual online analyzer, a CIA sensor from ABB, and Pegasus’s ESP Optimization software.

- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the ESP package.
 - ii. Review and discuss with Limestone staff critical items related to the area
 - iii. Review and assess the vendors related to the package.
 - iv. Negotiate sub vendor contract with the vendor of appropriate CIA technology
 - v. Issue purchase order if the contractor meets the criteria required.
 - vi. Begin installation engineering of selected sensor.

- b. Accomplishments for the past quarter were:
- i. Pegasus completed the initial review and site inspections with the involvement and participation of Limestone personnel.
 - ii. Pegasus/NeuCo has reviewed with site the anticipated needs for the project in the ESP area and confirmed the ABB carbon in Ash (CIA) analyzer as being the selected sensor. In house engineering defined the inputs required from the analyzer which include CIA percentage and mathematical constituents.
 - iii. Limestone participated in the engineering review for this section both in individual conferences held at site and on the phone as well as a formal functional specification meeting held at site.
 - iv. Communications to the ESP equipment controlled by Solvera has been reviewed with Solvera and a decision on how best to communicate was made. A P.O. for that equipment interface will be done in the next reporting period. This interface will give us more bidirectional access to data points.
 - v. The ABB analyzer (qty. 2) was selected and ordered by Pegasus after completion of a negotiation period. The contracts followed the requirements of the CA and negotiation was completed as part of this reporting period. Limestone engineering reviewed the deliverables and took part in review with the vendor to have a full understanding of the selection.

The ABB analyzer was subsequently manufactured and delivered to site during this period. Limestone personnel prepared the mounting location just past the economizer.

Ash samples need to be gathered and analyzed then ran through the analyzer for first calibration requirements. One bug in the source communications and alarming software was found and corrected by ABB

Limestone personnel moved the equipment to the location and it has been physically installed and commissioned to produce an initial value. The calibration and subsequent confirmation of the values will occur later. Figure 3 shows the microwave sensor path across the duct for one of the sensors.



Figure 3 ABB CIA microwave sensor path site

3.2.4 Advanced Intelligent Soot Blowing (ISB)

The Advanced Intelligent Soot Blowing (ISB) System is composed of Pegasus' Intelligent Sootblowing software. Note that this module was previously demonstrated, and does not constitute demonstration technology.

- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the ISB package.
 - ii. Review and discuss with Limestone staff critical items related to the area
 - iii. Review and assess the sensor and communications inputs related to the package.
 - iv. Negotiate any sub vendor contracts with the vendors of appropriate technology

- v. Architect systems engineering of the ISB
- b. Accomplishments for the past quarter were:
 - i. Pegasus completed all initial reviews and site inspections with the involvement and participation of Limestone personnel.
 - ii. Pegasus/NeuCo has reviewed with site the anticipated needs for the project in the ISB area and confirmed the Clyde Bergman proposed sensors could not be used due to many issues one of which would have been data access required as part of this NETL program. However we are very happy to report that a different source of additional sensor information was discovered and will be used during the project. The details of this input are confidential and were relayed to NETL participates in the closed door session of the NETL kickoff meeting.

3.2.5 Advanced Flue Gas Desulfurization Optimization System (FGD)

The Advanced Flue Gas Desulfurization Optimization System (FGD) Optimization System is composed of Pegasus' FGD Optimization software. .

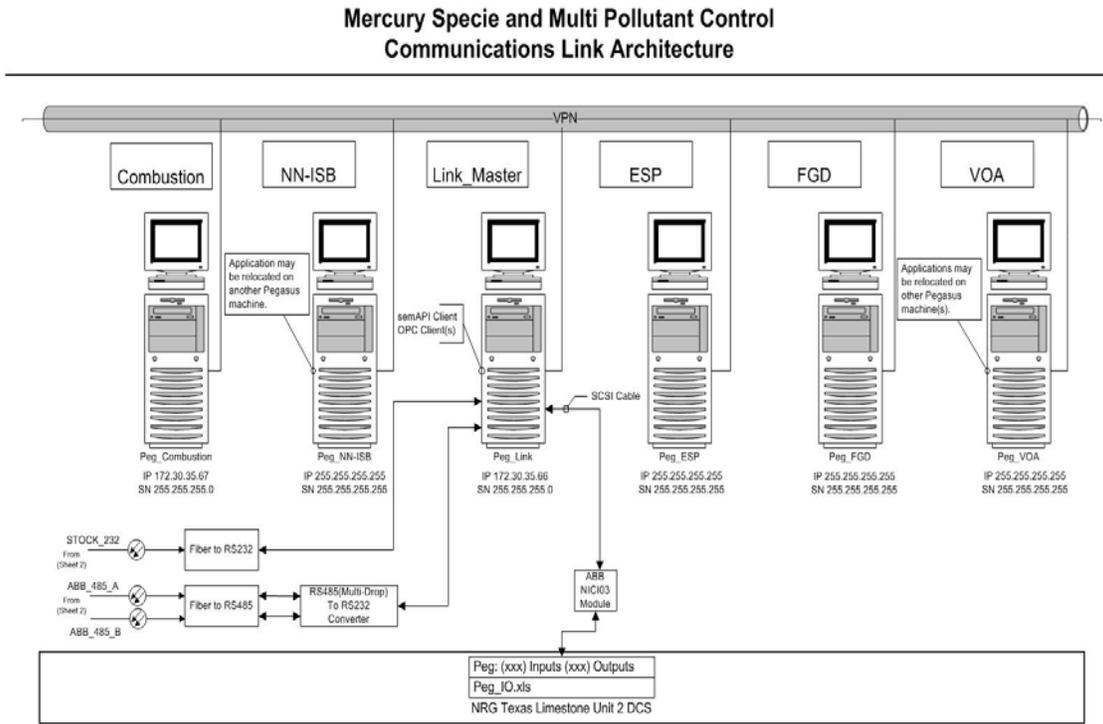
- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the FGD package.
 - ii. Review and discuss with Limestone staff critical items related to the area
 - iii. Review and assess the special controls and communications inputs related to the package.
 - iv. Architect systems engineering of the FGD in the Functional specification
- b. Accomplishments for the past quarter were:
 - i. Pegasus completed all initial reviews and site inspections with the involvement and participation of Limestone personnel.
 - ii. Pegasus/NeuCo has reviewed with site the anticipated needs for the project in the FGD area and confirmed the details of MVs and process goals in the FGD area.
 - iii. The functional specification meeting was held with a subsequent site visit to site for clarification and understanding by the engineer.

3.2.6 Intelligent Optimization

The Pegasus Optimization Systems will arbitrate among the solutions for the above systems.

- a. Goals for the past quarter were:
 - i. Perform in house engineering inspection of the site related to the overall packages and the architecture thereof.
 - ii. Review and discuss with Limestone staff critical items related to the area

- iii. Review and assess the special control paths and communications decisions of the project overall.
- iv. Architect systems engineering of the overall system
- b. Accomplishments for the past quarter were:
 - i. Pegasus completed all initial reviews and systems architecture of the design of communications.
 - ii. The architecture diagram serves as an overall guide for all of the packages as a whole. Figure 4 is an example of one sheet of this diagram and the full set was provided as part of the Kickoff meeting document exchange.



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Figure 4 Architecture Overview

4 Cost Status

This first quarter report was inclusive of the delivery of the project plan and hence does not have a reportable segment pertaining to EVA. That will begin with in August with the July monthly report.

A proportion of the initial spending was done at risk to Pegasus under the terms of the pre-award agreement. This initial funding was used in large part to procure the initial subvendor contracts in order to make best as possible use of the unit outage at Limestone. Much of the critical work was accomplished and as of this date no schedule adjustment from originally proposed dates are noted. Some future adjustment to schedule may need to be taken which would accommodate delays in the CA approval process; however none are anticipated as June 30. Pegasus remains working to achieve the draft schedule submitted in 2005 prior to the issuance and final approvals of the CA

Total approved budget for Phase I	\$9,156,712
DOE Share of Total Approved Budget	\$3,577,451
Pegasus/NeuCo Share of Budget	\$5,579,261

Expenses	\$1,241,959.77
G&A Expense	779,234.02
Total Quarterly Expense	2,021,193.79
Billable Percentage	0.390692
Quarterly DOE Billable Amount	\$ 789,664.25
Quarterly Pegasus Non-Bill Amount	\$1,231,529.55
DOE Billable	\$789,664.25
Billed To Date	\$785,406.17
Unbilled To Date	\$ 4,258.08

5 Schedule Status

As part of this first quarterly effort the project management plan was submitted during this quarter. The progress to schedule remains on milestone progress as submitted. Subsequent quarterly reports will report in this section if there are deviances to the schedule against the project as initially submitted as part of this first quarter's Project Management Efforts.

Much of the critical work was accomplished during the pre-approval period and as of this date no schedule adjustments are noted. Some future adjustment to schedule may need to be taken which would accommodate delays in the CA approval process; however none are anticipated as June 30. Pegasus remains working to achieve the draft schedule submitted in 2005 prior to the issuance and final approvals of the CA Please refer to the management and organizational plans submitted in the first reporting period and reviewed near the end of the quarter in the DOE/NETL kickoff meeting held and documented June 2006.

6 Reportable changes or problems for the period

There have been no approach changes to the project from a scientific aspect; however there have been two name organizational name changes to report:

- 1) The first was the name change of Texas Genco to NRG Texas. NRG Texas and the Limestone site remain fully committed to the CCPI effort and fully stated so in their corporate releases as well as within more private project meetings and daily activity.
- 2) Due to the purchase of Pegasus Technologies, Inc. by NeuCo Inc. a notation of the contract may desired. At this point in time there is no known mandatory reason for the Novation since Pegasus continues business and as a legal entity with full obligations under the original CA. All organizations remain committed to the project and its goals. From a technical aspect we have begun investigating if there are any additional tools that may now be available which may not have been prior to the acquisition.

7 Absence or changes of key personnel

The acquisition of Pegasus Technologies, Inc. by NeuCo Inc. has produced a change in the designated business officer Thomas (TJ) Nemeth to Steve Scopetski. This change was so noted and accepted in the required formal notification to NETL.

8 Product Completed/Produced, Technology Transferred, Presentations, Patents

The following papers and updates were processed with the aid of both NRG Texas Limestone, and the office of David Anna at DOE.

- 1) A paper for presentation in the subsequent reporting period was submitted and accepted to the CoalGen conference. The paper was entitled Mercury Specie and Multipolutant Control. The focus of the paper and presentation was an update to the industry on the CCPI-2 activities of this project at Limestone. The paper is to be presented the week of CoalGen August 16, 2006.

- 2) The Pegasus website and NeuCo web sites have been updated to indicate the approved CA and start of project activates at Limestone. Similarly the subvendors as their paperwork has been approved have made announcements and updates.

9 Conclusion

The project has successfully begun and initial efforts are underway. Budget period 1 is defined in the scope as the design period. The formal scope deliverables for budget period 1 include the installation of all sensors, design of software system, and establishment of the as-found baseline, conducting parametric testing and producing operating and test metrics for pre-project and post-project data comparison, as well as the required project management steps including the budget period 1 review meeting. To those ends Pegasus has established the basic site communications and technical architecture for the project. The Demonstration power plant has completed an important outage on this 930MW plant. During that outage advanced sensors have been physically installed and are set to begin calibration steps. The Project Management required activities including the Management Organizational Plan, Project Schedule, Communications Plan, and the Project Kickoff Meeting were completed.

9.1 Intelligent Fuel Management System (FMS)

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with Ready Engineering Coal Fusion System, and SABIA's elemental analyzer for this task. The Sabia elemental analyzer was manufactured to the job site requirements and physically mounted into its location during this reporting period. Pegasus/NeuCo worked to understand the Limestone fuel delivery system usage and requirements including the points on input data.

9.2 Mercury Specie Control System:

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with Zolo Laser Spectroscopy Analyzer and the Triple 5 coal flow sensors. They were both manufactured and physically mounted into its specific site location during this reporting period. NRG Texas Limestone personnel and Pegasus have established the communications physical connections for these devices in preparation of receiving project data. Pegasus engineers working with NRG Texas sited the locations for the Continuous Emission Monitors (CEMs). Limestone installed the access flanges during the outage. PS Analytical has designed the sensors and cabinetry for the site and has begun construction.

9.3 Advanced Electrostatic Precipitator (ESP) Optimization

Pegasus/NeuCo has completed the selection, issuance of purchase orders, and initiated work with the subvendor of this task. The ABB Carbon-In-Ash (CIA) was manufactured to the job site requirements and physically mounted into its location during this reporting period. Initial sensor signals were being received locally on the boiler.

9.4 System Advanced Intelligent Soot Blowing (ISB) System:

Pegasus/NeuCo worked to understand the Limestone sootblowing equipment and requirements. A new sensor usage was reviewed and selected in lieu of a sensor manufacture that did not meet the project requirements for data.

9.5 Advanced Flue Gas Desulfurization (FGD) Optimization System:

Pegasus/NeuCo worked to understand the Limestone FGD equipment and requirements.

9.6 Intelligent Optimization:

Architecture for the overall systems design including communications architecture, DCS point access, and all advanced sensor inputs was designed and implementation was begun.

9.7 Project management

Project management required activities were completed on or ahead of schedule for the following items:

- The Communications Plan was submitted and approved

- The weekly and monthly updates were issued accordingly during the period

- The Project Evaluation Plan was properly submitted

- The Project Management Plan was properly submitted

- The Kickoff meeting was convened at NETL offices in Morgantown W.V.

- The first invoice was submitted, reviewed, and approved through the DCAA system and paid by DOE

10 References

None to state for this report

11 List of Acronyms and Abbreviations

(Consolidated list as may be used in this or future reference reports)

API	Application Programming Interface
BTU	British Thermal Unit
CCPI	Clean Coal Power Initiative
CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
DCS	Distributed Control System
DOE	Department of Energy
FEGT	Furnace Exit Gas Temperature
ESP	Electro Static Precipitator
FD	Forced Draft
FGD	Flue Gas Draft
FT ³	Cubic Feet
GUI	Graphical User Interface
HMI	Human Machine Interface
HR	Heat Rate
H ₂ O	Water
ID	Induced Draft
ISB	Intelligent Sootblowing
LAN	Local Area Network
LOI	Loss on Ignition
Mol Wt	Molecular Weight
mmBTU	Millions of BTUs
mm	Million
MW	Megawatt
mWh	Megawatt hour
M/year	Million per year
N ₂	Nitrogen

NH ₃	Ammonia
NO _x	Nitrogen Oxides
O ₂	Oxygen
OEM	Original Equipment Manufacturer
OFA	Over Fire Air
OPC	OLE for Process Control
PC	Personal Computer
PLC	Programmable Logic Controller
ppm	parts-per-million
PRB	Powder River Basin
PTC	Power Test Code
RH	Re heater
S	Sulfur
SA	Secondary Air
SH	Super Heater
SO ₂	Sulfur Dioxide
SO ₃	Sulfur Trioxide
TC	Thermocouple
VPN	Virtual Private Network