850-444-6153



December 17<sup>th</sup>, 2013

Mr. Andrew Joslyn Florida Department of Environmental Protection Northwest District 160 Governmental Center Pensacola, Florida 32501-5794

#### **VIA EMAIL**

Re: CRIST MERCURY RESEARCH CENTER SEMI-ANNUAL REPORT.

PERMIT NUMBER: 0330045-025-AV

Mr. Joslyn:

This letter serves as the semi-annual summary report for the mercury research center as required by Specific Condition III.A.53 (shown below) of the 0330045-025-AV Title V permit. This summary includes information on projects conducted between July 8 and December 20th, 2013.

III.A.53. Semi-Annual Summary Reports. The permittee shall be responsible for submitting semi-annual summary reports. These reports will outline each test program conducted and outline each test program results. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. The semi-annual summary reports will be sent to the DEP Northwest District Office and the Bureau of Air Regulation. The first summary was due June 30, 2006 and covered all tests and the results from such tests conducted between July 1, 2005 and December 31, 2005. In a like manner, a similar summary shall be submitted for each 180 day period thereafter. [Permit No. 0330045-011-AC]

During the reporting period, nine (9) test programs were conducted at the Mercury Research Center (MRC). A summary of each program is listed below. Note that in many cases the test dates listed include preparatory and wrap-up activities associated with the project, and thus active testing may not have been conducted over the full time period as listed.

# **Test Programs**

# Bio- Carbon Testing - Firm A

A proprietary bio-carbon was tested for mercury removal effectiveness across the ESP. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: July 8-12)

#### Activated Carbon Testing - Firm B

A proprietary activated carbon was tested for mercury removal effectiveness across the ESP and Baghouse. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: July 15-26)

# Activated Carbon Testing - Firm C

A proprietary activated carbon was tested for mercury removal effectiveness across the ESP. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: July 29- August 13)

# Bio Carbon Testing - Firm D

A proprietary bio-carbon was tested for mercury removal effectiveness across the ESP. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: August 14-16)

#### Activated Carbon Testing - Firm B

A proprietary activated carbon was tested for mercury removal effectiveness across the ESP and Baghouse. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: August 19-30)

## Activated Carbon Testing - Firm E

A group of proprietary activated carbons were tested for SO3 concentrations effectiveness across the ESP. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: September 23-October 11)

#### Activated Carbon Testing - Firm B

A proprietary activated carbon was tested for mercury removal effectiveness across the ESP and Baghouse. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: October 14-18)

# ESP Plate Spacing Testing - Firm F

Testing was conducted of a proprietary process for changing plate spacing in the ESP and the electrical charge in the ESP, to record the changes in particulate removal. (Testing Period: Nov. 4-15)

Unit 5 was taken off line for repairs and compliance testing on Unit 4 November 18<sup>th</sup> – December 6<sup>th</sup>.

#### Activated Carbon Testing - Firm B

A proprietary activated carbon was tested for mercury removal effectiveness across the ESP and Baghouse. The test evaluated mercury capture efficiency, carbon utilization efficiency, and various other parameters on the overall effectiveness of the material and process. (Testing Period: Dec. 9-20.)

Test programs will be off for holidays December 23<sup>rd</sup> – 31<sup>st</sup>, 2013.

Should you have any questions regarding this notification, please contact Mr. Greg Terry at (850) 444-6144 or me at (850) 444-6153.

Sincerely,

Susan B. Kennedy, QEP **Environmental Affairs** 

Jonathan Holtom - FDEP, Tallahassee CC: Jim Vick - Gulf Power Company Dwain Waters - Gulf Power Company Jora Maxwell - Gulf Power Company John Dominey - Gulf Power Company Blake Doherty - Gulf Power Company Greg Terry - Gulf Power Company Tammy Hall - PCT, Inc.

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