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August 9, 2010

Mr. A.A. Linero, P.E.  
Program Administrator – Special Projects Section  
Florida Department of Environmental Protection  
Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Request for Additional Information  
Air Permit Application for Palm Beach Renewable Energy Facility No. 2  
DEP File No. 0990234-017-AC (PSD-FL-413)

Dear Mr. Linero:

The Solid Waste Authority of Palm Beach County (the Authority) is providing additional information regarding the air permit application for the proposed Palm Beach Renewable Energy Facility No. 2 (PBREF2). This information is provided in response to the Florida Department of Environmental Protection's request for additional information (RAI) dated June 15, 2010. Each item contained in the Department's RAI is presented below followed by our responses to the information requested. We have also enclosed a Professional Engineer's certification statement for this submittal.

Please note that in order to allow for the continuation of the review process in a timely manner, we are providing a partial response at this time. The Authority is currently in the process of requesting and reviewing additional information on selective catalytic reduction (SCR) control systems, and as such, must defer its response to Items 2 and 3, which are related to the NO<sub>x</sub> BACT Analysis. Subsequent to our July 13<sup>th</sup> meeting with the Department and in consideration of new and emerging regulatory requirements, our consultant, Malcolm Pirnie Inc., is now recommending the use of SCR technology for this project. While installing SCR for the new facility would result in lower NO<sub>x</sub> emissions, it would substantially increase the cost to construct the facility during very challenging economic times. The Authority's Governing Board (Board) will take this topic into consideration as part of the upcoming Board meeting scheduled for August 25, 2010. Following the Board's decision, we will provide additional information on NO<sub>x</sub> controls to the Department. We expect to provide this information to the Department in early September.

As discussed during our meeting on July 13<sup>th</sup>, it is both the Authority's and the Department's goal to have an air construction permit issued before the end of this year. We recognize that this will require submittal of requested information in a timely manner on our part and expedited review of our permit application and additional submittals by the Department. We appreciate the Department's continued assistance and cooperation in meeting the desired permitting schedule.

1. Steam Capacity: *The steam turbine generators will have an estimated power output rating in the range of 90-100 Megawatts (MW). Please provide the projected steam generation parameters (pressure, temperature, pounds per hour) for the steam generators.*

**The proposed facility will include a single steam turbine generator set to produce electricity from the steam generated by the three municipal waste combustors. As indicated above, the turbine generator will have an estimated power output in the range of 90-100 MW. The projected steam parameters are as follows:**

- **Pressure: 900 psig**
- **Temperature: 830° F**
- **Steam Generation: 851,000 – 960,300 lb/hr**

2. BACT Analysis for NO<sub>x</sub>: *The application indicates 85 ppmvd as the lowest nitrogen oxides (NO<sub>x</sub>) emission limit based on the RACT/BACT/LAER Clearinghouse database. Please consider some of the well-known applications, draft and final permits including the 2,200 tons per day (TPD) Jefferson Renewables in Ohio and the 4,000 TPD stoker-based Fairfield, Maryland facility. Both will include regenerative selective catalytic reduction (RSCR) to achieve emission limitations of 75 and 45 parts per million (ppm) respectively.*

**As discussed above, additional information related to the BACT Analysis for NO<sub>x</sub> will be provided to the Department in September following the Board's consideration of implementing SCR for this project.**

3. BACT Cost Analysis for NO<sub>x</sub>: *Please re-evaluate the NO<sub>x</sub> BACT analysis with RSCR as an option and provide costs associated with the RSCR comparison with SNCR and SCR. In addition, review of the submitted cost analysis is requested by the Department. Please justify the need for both operating labor and maintenance labor. The catalyst replacement number appears to be annualized. Was the initial cost of the catalyst backed out of the original product cost? Provide additional justification and basis for the additional energy for flue gas heating prior to the SCR. Please review and re-evaluate the incremental cost difference between the three technologies based upon maximum emission reductions for SCR, SNCR, and RSCR technologies.*

**As discussed above, additional information related to the BACT Analysis for NO<sub>x</sub> will be provided to the Department in September following the Board's consideration of implementing SCR for this project.**

4. Request for Proposals (RFP) to Construct Facility: *We note that RFP are due June 21 to construct the facility presuming selective non-catalytic reduction (SNCR) for NO<sub>x</sub> control while leaving room to subsequently install SCR at a future date. It would be advisable to have the bidders actually include the SCR option or regenerative SCR (RSCR) within their proposals as this would likely be a more economic way to obtain the lowest cost for SCR for comparison with SNCR options.*

**The proposals to construct the new facility were received on June 21, 2010. Due to the limited time between the Department's June 15, 2010 RAI letter and the scheduled proposal submittal date of June 21, 2010, it was not possible to require that the proposals include a SCR or RSCR option as suggested by the Department.**

5. Flue Gas Recirculation (FGR): *FGR is discussed in the analysis, but not considered as part of the overall BACT for NO<sub>x</sub> control. The analysis states FGR is not used in modern combustors, however FGR is incorporated into the recently commissioned Hillsborough County Resource Recovery Facility (HCRRF) Unit 4 permit. While the Department allowed Covanta to substitute their new LN/VN technologies in lieu of FGR. However FGR is a highly regarded technology, especially in European applications and a better case should be made for its exclusion.*

**FGR has not been excluded from consideration in the combustion system design. Rather, the Authority requests that FGR be considered as a design option that may be used as part of an integrated combustion system design to meet the pending NO<sub>x</sub> emission limit at the discretion of the selected combustion system vendor. While some modern combustors use FGR, a recent trend in combustion system designs featuring enhanced combustion control is to exclude FGR or use an internal FGR variation. In certain designs, FGR would interfere with the enhanced combustion control feature and the potential for corrosion/fouling in the furnace could increase. Of the three system vendors for this project, one proposes to use FGR, one proposes to use an internal FGR variation, and one proposes not to use FGR. In summary, the Authority believes system vendors should be allowed to use or not use FGR as an option in meeting the emission requirements.**

6. BACT Analysis for SO<sub>2</sub>: *40 CFR 60, Subpart Eb SO<sub>2</sub> emissions limit is the less stringent of 30 ppmdv or 80% reduction. The standard was developed through a process whereby data from facilities with similar SO<sub>2</sub> control (spray dryer/fabric filter) were analyzed and values selected that represent an excessively conservative "upper production limit" (UPL). The application requested the least stringent of 24 ppmdv and 80% control as BACT which is not much better than Subpart Eb.*

*For reference, tests performed at the HCRRF Unit 4 show 99% reduction of SO<sub>2</sub> by using the spray dryer absorber/fabric filter combination while achieving 0.56 ppm. Please revisit the reduction levels and emission limit concentration for SO<sub>2</sub> emissions. We have attached a table with the initial performance tests conducted in September 2009 for HCRRF Unit 4.*

The proposed SO<sub>2</sub> emissions limit of 24 ppm<sub>vd</sub> represents a 20 percent reduction in the standard required for new MWCs by 40 CFR 60, Subpart Eb and is also more stringent than the lowest SO<sub>2</sub> emission limit specified in any permit for a MWC operating in the United States. As indicated by the Department, we recognize that many units have demonstrated the ability to achieve lower SO<sub>2</sub> emission levels through stack testing. The proposed facility is also expected to achieve low SO<sub>2</sub> emission levels by operating state-of-the-art acid gas control systems. However, the proposed emission limit seems appropriate considering the need to account for short-term fluctuations in MSW characteristics and in recognition that the proposed emission limit is calculated as a 24-hour (daily) value.

7. *Mercury:* EPA has provided the following table with the average mercury emissions from MWC facilities over a period of 10 years (1999-2008). The table shows the downward trend for mercury for MWC units and by 2008 the national average was 6 micrograms per dry standard cubic meter (µg/dscm). The new HCRRF Unit 4 achieved 1.53 µg/dscm. Similar facilities in Florida have shown emissions lower than the national average with activated carbon injection (ACI), and Wheelabrator North Broward County and existing Palm Beach RRF have shown lower emissions even without ACI. Please consider this information in the calculation and determination of mercury emission limits for this project.

The proposed mercury emission limits (25 µg/dscm quarterly test basis and 15 µg/dscm annual average) are lower than the mercury limits currently established for any MWC operating in the United States. The proposed annual limit was calculated based on recent stack test results from mass-burn MWCs in Florida using ACI systems for mercury control. As indicated in the enclosed Table 1, the proposed annual limit of 15 µg/dscm was calculated by determining the 95% confidence interval for the data set and adding the upper limit of the confidence interval to the average of the mercury test values. While the test data indicates a downward trend in mercury emissions, it is important to also notice the variability in the data. For example, there are several test values during the past five years above 25 µg/dscm, including test results from units at the Hillsborough and Lee County facilities with values of 66.6 µg/dscm and 35.7 µg/dscm, respectively.

The Department has expressed concern regarding the potential mercury emission rate of 140 pounds per year indicated in the permit application for the proposed facility. For comparison purposes, the table below provides a summary of actual and potential (allowable) emissions for representative WTE facilities in Florida using ACI for mercury control. As shown in the table, actual mercury emissions reported for these facilities are considerably lower than the potential emission levels. The proposed facility is expected to operate in a similar fashion and achieve average mercury emission levels below the allowable level.

WTE Facility	Nominal Capacity (tons MSW/day)	Potential (Allowable) Mercury Emissions (lbs/yr)	2007-2008 Avg. Actual Mercury Emissions (lbs/yr)
Lee County RRF	1,980	619	74
Hillsborough County RRF *	1,200	372	72
Pinellas County RRF	3,000	690	45
<b>Proposed PBREF2</b>	<b>3,000</b>	<b>140</b>	<b>40**</b>

\* Excludes emissions from the new unit (Unit #4) which began operating in 2009.

\*\* Estimated actual emissions for the proposed facility assuming a mercury emission level of 4-5 µg/dscm.

As discussed above, actual mercury emissions from the proposed facility are expected to be low. However, it is essential to account for potential variability of the mercury content of the waste stream when establishing a not-to-exceed permit limit. For these reasons, a quarterly mercury limit (3-test run average) of 25 µg/dscm has been proposed along with a more stringent annual limit of 15 µg/dscm. The proposed annual limit is almost 50 percent lower than the lowest existing MWC permit limit of 28 µg/dscm. Collectively, the proposed mercury limits will establish a new benchmark for WTE facilities in the United States.

8. *Protocol for Non-guideline Procedures:* We recommend submission of protocols for how the applicant intends to address and model pollutants for which standard Environmental Protection Agency guidance is not yet defined. At this time, this includes the SO<sub>2</sub> 1-hour and NO<sub>2</sub> 1-hour standard Significant Impact Levels (SIL).

A modeling protocol is being developed to address the additional analyses to be completed for the 1-hour SO<sub>2</sub> and NO<sub>2</sub> standards. Upon completion, the modeling protocol will be submitted to the Department.

9. *PM<sub>10</sub> and Surrogate for PM<sub>2.5</sub>:* Please provide justification for the use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub>. Please refer to the list of issues to be addressed in the March 23, 2010 memo from Stephen Page, Director of the U.S. Environmental Protection Agency's Office of Air Quality Planning and Standards.

A modeling analysis was completed for PM<sub>2.5</sub> emissions to demonstrate compliance with the 24-hour and annual NAAQS for PM<sub>2.5</sub>. An approach relying on the PM<sub>10</sub> surrogate policy was not used. Please refer to Appendix F of the permit application for additional information on the PM<sub>2.5</sub> modeling analysis. The PM<sub>2.5</sub> modeling results and comparisons with the PM<sub>2.5</sub> ambient standards are presented in Section 6.4 of Appendix F.

10. SO<sub>2</sub> 1-hr Standard: Please submit modeling to address the new SO<sub>2</sub> 1-hour standard, released June 2, 2010, in the preliminary impact analysis. If the preliminary impact analysis results in a significant impact above the SIL proposed in your protocol (see issue number 7), then please provide the PSD increment analysis and full, cumulative multisource analysis.

**A modeling analysis to demonstrate compliance with the new 1-hour standard for SO<sub>2</sub> will be submitted to the Department upon completion.**

11. NO<sub>2</sub> 1-hr Standard: Please submit modeling to address the new NO<sub>2</sub> 1-hour standard, effective April 12, 2010, in the preliminary impact analysis. If the preliminary impact analysis results in a significant impact above the SIL proposed in your protocol (see issue number 7), then please provide the PSD increment analysis and full, cumulative multisource analysis.

**A modeling analysis to demonstrate compliance with the new 1-hour standard for NO<sub>2</sub> will be submitted to the Department upon completion.**

We appreciate the Department's continued assistance with this project and look forward to discussing our permit application with you further. If you have any questions concerning the information provided herein, please contact myself or Ms. Leah Richter with Malcolm Pirnie Inc. at (954) 525-2499 or via e-mail at [lrichter@pirnie.com](mailto:lrichter@pirnie.com).

Very truly yours,



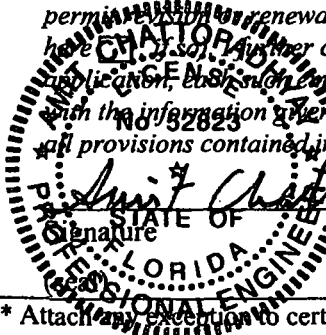
Mark Hammond  
Executive Director

Enclosures: Professional Engineer Certification  
Mercury Test Results from Florida Mass-Burn WTE Facilities Using ACI

Cc: R. Bull, Florida Department of Environmental Protection  
M. Bruner/SWA  
R. Schauer/SWA  
M. Morrison/SWA  
L. Richter, Malcolm Pirnie  
A. Chattopadhyay, Malcolm Pirnie  
J. Cohn, Malcolm Pirnie  
D. Dee, Young Van Assenderp, P.A.

**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Amit Chattopadhyay</b> Registration Number: <b>52823</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Malcolm Pirnie, Inc.</b> Street Address: <b>17-17 Route 208 North, 2<sup>nd</sup> Floor</b> City: <b>Fair Lawn</b> State: <b>NJ</b> Zip Code: <b>07410</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(201) 398 - 4311</b> ext. Fax: <b>(201) 797 - 4399</b>
4. Professional Engineer E-mail Address: <b>achattopadhyay@pirnie.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i>  (1) <i>To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i>  (2) <i>To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i>  (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i>  (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i>  (5) <i>If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>   <i>Amit Chattopadhyay</i> Signature  <i>August 3, 2010</i> Date

\* Attach any exception to certification statement.

**TABLE 1**  
**Mercury Test Results from Florida Mass-Burn WTE Facilities Using ACI**

AIRS ID	SITE NAME	EU ID	EU DESCRIPTION	TEST DATE	TEST ALLOWABLE	TEST ACTUAL	TEST ACTUAL UNIT DESCRIPTION	µg/dscm @ 7% O <sub>2</sub>
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	1	MSW Combustion Unit #1 (North)	11/9/2007	0.07	0.01303	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	13.03
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	1	MSW Combustion Unit #1 (North)	11/16/2006	0.07	0.0025	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.5
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	1	MSW Combustion Unit #1 (North)	10/31/2005	0.07	0.0077	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	7.7
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	2	MSW combustion Unit #2 (South)	11/10/2007	0.07	0.00587	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	5.87
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	2	MSW combustion Unit #2 (South)	11/18/2006	0.07	0.0018	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.8
50031	BAY COUNTY WASTE-TO-ENERGY FACILITY	2	MSW combustion Unit #2 (South)	11/3/2005	0.07	0.0031	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.1
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	103	Municipal Waste Combustor & Auxiliary Burners-Unit 1	10/12/2007	0.07	0.0019	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.9
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	103	Municipal Waste Combustor & Auxiliary Burners-Unit 1	10/11/2006	0.07	0.0024	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.4
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	103	Municipal Waste Combustor & Auxiliary Burners-Unit 1	10/5/2005	0.07	0.0038	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.8
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	104	Municipal Waste Combustor & Auxiliary Burners-Unit 2	10/9/2007	0.07	0.0026	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.6
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	104	Municipal Waste Combustor & Auxiliary Burners-Unit 2	10/10/2006	0.07	0.0018	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.8
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	104	Municipal Waste Combustor & Auxiliary Burners-Unit 2	10/4/2005	0.07	0.0029	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.9
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	105	Municipal Waste Combustor & Auxiliary Burners-Unit 3	10/10/2007	0.07	0.0061	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	6.1
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	105	Municipal Waste Combustor & Auxiliary Burners-Unit 3	10/12/2006	0.07	0.0031	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.1
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	105	Municipal Waste Combustor & Auxiliary Burners-Unit 3	10/7/2005	0.07	0.011	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	106	Municipal Waste Combustor & Auxiliary Burners-Unit 4	10/11/2007	0.07	0.0029	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.9
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	106	Municipal Waste Combustor & Auxiliary Burners-Unit 4	10/13/2006	0.07	0.0045	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	4.5
570127	MCKAY BAY REFUSE-TO-ENERGY FACILITY	106	Municipal Waste Combustor & Auxiliary Burners-Unit 4	10/6/2005	0.07	0.0045	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	4.5
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	7/9/2007	0.07	0.0119	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11.9
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	7/11/2006	0.07	0.0112	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11.2
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	7/10/2006	0.07	0.0112	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11.2
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	7/18/2005	0.07	0.0228	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	22.8
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	7/12/2005	0.07	0.0228	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	22.8
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	7/9/2007	0.07	0.0598	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	59.8
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	7/19/2006	0.07	0.00666	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	6.66
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	7/10/2006	0.07	0.0666	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	66.6
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	7/18/2005	0.07	0.0206	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	20.6
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	7/14/2005	0.07	0.0206	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	20.6
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	7/9/2007	0.07	0.017	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	17
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	7/12/2006	0.07	0.0181	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	18.1
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	7/10/2006	0.07	0.0181	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	18.1
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	7/18/2005	0.07	0.0179	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	17.9
570261	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC.	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	7/13/2005	0.07	0.0179	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	17.9
690046	LAKE COUNTY RESOURCE RECOVERY FACILITY	1	288 TPD MSW Combustor & Auxiliary Burners-Unit 1	1/19/2007	70	9.42	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	9.42
690046	LAKE COUNTY RESOURCE RECOVERY FACILITY	1	288 TPD MSW Combustor & Auxiliary Burners-Unit 1	1/19/2006	70	3.04	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.04
690046	LAKE COUNTY RESOURCE RECOVERY FACILITY	1	288 TPD MSW Combustor & Auxiliary Burners-Unit 1	1/10/2005	70	12.1	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	12.1
690046	LAKE COUNTY RESOURCE RECOVERY FACILITY	2	288 TPD MSW Combustor & Auxiliary Burners-Unit 2	1/19/2006	70	2.34	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	2.34
690046	LAKE COUNTY RESOURCE RECOVERY FACILITY	2	288 TPD MSW Combustor & Auxiliary Burners-Unit 2	1/10/2005	70	3.48	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.48
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	1	Municipal Waste Combustion Unit #1	6/25/2008	0.07	0.0156	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	15.6
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	1	Municipal Waste Combustion Unit #1	9/24/2007	0.07	0.0118	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11.8
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	1	Municipal Waste Combustion Unit #1	6/28/2005	0.07	0.0357	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	35.7
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	2	Municipal Waste Combustion Unit #2	6/24/2008	0.07	0.00349	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	3.49
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	2	Municipal Waste Combustion Unit #2	10/8/2007	0.07	0.0123	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	12.3
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	2	Municipal Waste Combustion Unit #2	6/29/2005	0.07	0.0142	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	14.2
710119	LEE CO. SOLID WASTE RESOURCE REC. FAC.	6	Municipal Waste Combustion Unit #3	6/23/2008	0.028	0.00819	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	8.19
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	1	Municipal waste Combustor Unit #1	1/22/2008	50	21	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	21
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	1	Municipal waste Combustor Unit #1	4/16/2007	70	18	MICROGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	18
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	1	Municipal waste Combustor Unit #1	4/11/2006	0.07	0.01104	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11.04
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	1	Municipal waste Combustor Unit #1	4/22/2005	0.07	0.00449	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	4.49
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	2	Municipal Waste Combustor Unit #2	1/23/2008	0.07	0.015	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	15



**TABLE 1 (cont.)  
Mercury Test Results from Florida Mass-Burn WTE Facilities Using ACI**

AIRS ID	SITE NAME	EU ID	EU DESCRIPTION	TEST DATE	TEST ALLOWABLE	TEST ACTUAL	TEST ACTUAL UNIT DESCRIPTION	µg/dscm @ 7% O <sub>2</sub>
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	2	Municipal Waste Combustor Unit #2	4/22/2005	0.07	0.0082	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	8.2
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor Unit #3	1/24/2008	0.07	0.021	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	21
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor Unit #3	4/17/2007	0.07	0.0105	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	10.5
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor Unit #3	4/11/2006	0.07	0.0179	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	17.9
1010056	PASCO COUNTY RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor Unit #3	4/22/2005	0.07	0.00492	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	4.92
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	1	Municipal Waste Combustor & Auxiliary burners-Unit #1	4/21/2005	0.07	0.0016	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.6
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	4/27/2007	0.07	0.0016	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.6
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	4/27/2006	0.07	0.011	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	11
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	2	Municipal Waste Combustor & Auxiliary burners-Unit #2	4/21/2005	0.07	0.0051	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	5.1
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	4/27/2007	0.07	0.0018	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	1.8
1030117	PINELLAS CO. RESOURCE RECOVERY FACILITY	3	Municipal Waste Combustor & Auxiliary burners-Unit #3	4/21/2005	0.07	0.0056	MILLIGRAMS PER DRY STANDARD CUBIC METER @ 7% O <sub>2</sub>	5.6

Average 11.7  
Standard Deviation 12.1  
95% Confidence Interval 3.0

<b>Average + 95% Confidence</b>	<b>15</b>
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