

**Technical Center**  
101 Hampton Avenue  
Needham, MA 02494  
Tel: 781-972-2300

**RECEIVED**  
AUG 14 2012  
DIVISION OF AIR  
RESOURCE MANAGEMENT

August 10, 2012

Mr. Jason Waters  
Environmental Protection Commission of Hillsborough County  
Roger P Stewart Center  
3629 Queen Palm Rd  
Tampa FL 33619  
813-627-2600

Re: Operating permit No. 0571326-003-AO/004-AC condition 21e submission

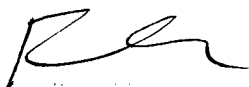
Dear Mr. Waters,

Enclosed are the monthly mercury throughput results for the high carbon fly ash stream through June 2012 for the Separation Technologies' fly ash processing facility as specified in our operating permit specific condition 21e.

I have also enclosed a copy of a letter dated May 10, 2012 sent by Rudy Wiechert, our plant manager, requesting that the monthly fly ash mercury sampling requirement be reduced. We believe that the objective of the fly ash mercury sampling request has been met by the 1552 days of sample compositing and testing that we have done since startup since April 2008. Please let us know the status of the sampling reduction request.

Please contact me directly, if you have any questions about the enclosed information.

Regards,



Frank Hrach  
Director of Process Engineering  
Separation Technologies LLC  
781-972-2311 office

cc :           ALinero           FDEP  
              RWiechert       ST (via email)

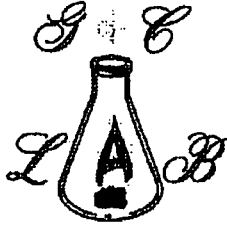
Hg Summary

	Composite Feed ash processed stons	Composite Feed ash LOI wt%	Composite Feed ash Hg level ppm	Estimated Feed ash Hg rate lb/month	ProAsh produced stons	Composite ProAsh LOI wt%	Composite ProAsh Hg level ppm	Estimated ProAsh est. Hg rate lb/month	HCFA produced stons	Composite HCFA LOI wt%	Composite HCFA Hg level ppm	Estimated HCFA Hg rate lb/month
Mar-08	2441	7.1	0.200	0.98	1630	2.6	0.062	0.20	811	12.6	0.403	0.65
Apr-08	6260	7.6	0.187	2.34	4173	3.2	0.058	0.48	2087	21.5	0.548	2.29
May-08	3528	5.0	0.235	1.66	2028	2.6	0.108	0.44	1500	11.7	0.499	1.50
Jun-08	9701	6.2	0.234	4.54	5620	2.4	0.097	1.09	4081	15.2	0.546	4.46
Jul-08	16417	8.5	0.376	12.35	10407	3.8	0.118	2.46	6010	17.4	0.578	6.95
Aug-08	9693	7.1	0.557	10.80	4299	4.1	0.255	2.19	5394	10.7	0.779	8.40
Sep-08	12218	5.7	0.406	9.92	7686	3.6	0.204	3.14	4532	9.3	0.644	5.84
Oct-08	11481	4.7	0.314	7.21	8885	3.0	0.147	2.61	2596	16.5	1.213	6.30
Nov-08	11014	4.5	0.389	8.57	7694	3.1	0.255	3.92	3320	7.7	0.728	4.83
Dec-08	9788	5.9	0.682	13.35	6894	3.4	0.261	3.60	2894	10.5	1.087	6.29
Jan-09	16133	6.3	0.243	7.84	11015	3.3	0.104	2.29	5118	8.0	0.525	5.37
Feb-09	13801	7.1	0.180	4.97	9015	3.1	0.081	1.46	4786	11.2	0.347	3.32
Mar-09	18134	7.9	0.274	9.94	10900	3.2	0.106	2.31	7234	15.5	0.540	7.81
Apr-09	13405	7.0	0.190	5.09	8777	3.1	0.065	1.14	4628	15.9	0.445	4.12
May-09	16634	6.4	0.192	6.39	11417	3.2	0.067	1.53	5217	14.8	0.523	5.46
Jun-09	20278	6.4	0.219	8.88	14547	3.4	0.102	2.97	5731	14.7	0.602	6.90
Jul-09	18046	6.0	0.470	16.96	10221	3.3	0.178	3.64	7825	11.3	0.833	13.04
Aug-09	17875	5.1	0.480	17.16	10867	3.5	0.273	5.93	7008	8.5	0.817	11.45
Sep-09	18402	5.0	0.438	16.12	13182	3.3	0.24	6.33	5220	10.9	0.912	9.52
Oct-09	14280	4.6	0.355	10.14	10770	2.9	0.215	4.63	3510	9.9	0.783	5.50
Nov-09	11835	4.8	0.298	7.05	8443	3.3	0.218	3.68	3392	8.3	0.783	5.31
Dec-09	20754	5.7	0.543	22.54	12744	3.5	0.246	6.27	8010	9.4	0.844	13.52
Jan-10	12437	5.9	0.418	10.40	7890	4.0	0.2	3.16	4547	9.1	0.653	5.94
Feb-10									5798	12.1	1.191	13.81
Mar-10									6044	11.2	0.993	12.00
Apr-10									4809	15.6	0.990	9.52
May-10									4005	22.5	1.154	9.24
Jun-10									5200	18.6	0.651	6.77
Jul-10									5106	16.0	0.665	6.79
Aug-10									4281	15.7	0.948	8.12
Sep-10									3699	19.0	0.927	6.86
Oct-10									9322	10.2	1.001	18.66
Nov-10									6790	12.4	1.384	18.79
Dec-10									3792	12.5	2.120	16.08
Jan-11									3135	14.7	2.330	14.61
Feb-11									4858	14.1	1.303	12.66
Mar-11									4764	10.0	1.229	11.71
Apr-11									5713	10.4	1.594	18.21
May-11									2589	15.9	2.731	14.14
Jun-11									4986	11.2	1.695	16.90
Jul-11									3610	11.6	1.660	11.99
Aug-11									5028	10.9	1.473	14.81
Sep-11									4933	12.5	1.684	16.61
Oct-11									3131	15.6	1.781	11.15
Nov-11									3894	13.2	1.808	14.08
Dec-11									3141	10.5	1.742	10.94
Jan-12									4333	11.2	1.554	13.47
Feb-12									4810	13.8	1.521	14.63
Mar-12									4266	11.8	1.651	14.09
Apr-12									6233	19.3	1.009	12.58
May-12									6245	12.3	1.457	18.20
Jun-12									4236	8.9	1.121	9.50
12-month rolling total									53860		1.504	162

Feed Ash = Raw Flyash from Big Bend

ProAsh= Mineral enriched Flyash

HCFA = Carbon enriched Flyash



**G and C Coal Analysis Lab., Inc.**

1341 Hoffman Hollow Road  
Summerville, Pa 15864  
814-849-2559  
Fax: 814-849-8878

Received From:  
SEPARATION TECHNOLOGIES LLC  
101 HAMPTON AVE.  
NEEDHAM, MA 02494

Date Received: 07/25/12

Date Reported: 08/01/12

PO# 381521 (ST)

\* RESULTS REPORTED USING EPA METHOD 7473

<u>Lab #</u>	<u>Sample ID</u>	<u>Mercury/ppb dry</u>
931251	T-0612-AB-C	1121
BCR143R	Blank:	<5.000 ppb dry
8563 DUP	Lab Value 1100 dry	Certified Value: 1100 ppb dry
8563 DUP SPIKE	370 ppb dry Lab Value: 527 ppb	Calculated Value: 516 ppb +/-20%

The above analytical results were obtained following ASTM procedures.

G & C COAL ANALYSIS LAB., INC.

APPROVED BY \_\_\_\_\_

13151 Wyandotte Road  
Gibson, FL 33534  
781-972-2386

May 10, 2012

Mr. Jason Waters  
Environmental Protection Commission of Hillsborough County  
Roger P Stewart Center  
3629 Queen Palm Rd  
Tampa FL 33619  
813-627-2600

Mr. Alvaro Linero  
Florida Department of Environmental Protection  
2600 Blair Stone Rd  
Tallahassee FL 32399

Re: Fly Ash Mercury Monitoring Reduction Request  
Separation Technologies (ST) Fly Ash Processing Facility  
Air Operating Permit 0571326-003-AO/004-AC

The current air operating permit for the subject facility includes a requirement for sampling and testing high carbon fly ash (HCFA) for mercury content (Specific Condition 21). The request for this data is made under the authority of Rule 624.070 (3) F.A.C. and FDEP's Mercury Control Initiatives, December 19, 2006. Rule 62-4.070(3) states that the permit may contain specific conditions necessary to provide reasonable assurance that the Department rules are met. However, the FDEP Mercury Control Initiatives are just that – an initiative, not a regulation. As there are no specific rules applicable to the mercury content of the materials this facility and since mercury is not being emitted to the air from the process, the data is being requested and provided in a spirit of cooperation, and as such, warrants consideration for the amount and cost of data being requested.

ST supports the efforts of the State of Florida to understand, manage, and reduce mercury emissions. For the past four years, ST has been cooperative with the FDEP Mercury Control Initiatives and has provided data at our expense.

Since start-up of the facility in March 2008, monthly composite samples are obtained for the HCFA stream by combining daily subsamples. The composite sample is tested for mercury content each month, and the results are used to estimate the mercury throughput rate for the HCFA stream. The results are reported to EPC and FDEP within 45 days after the end of each month. Since start-up of the facility in March 2008, approximately forty-seven (47) months of samples have been composited, tested, and reported.

In analyzing the results since start-up, ST observes that:

1. There was an upward trend in HCFA mercury content from start-up to approximately June 2011. This trend roughly corresponds to the installation schedules of Selective Catalytic Reduction (SCR) pollution controls at the Tampa Electric Big Bend generating units. It was expected that as new SCR controls were put into operation on the Big Bend generating units, the mercury content of fly ash from the station would increase. All four units at Big Bend now have operational SCR systems. Therefore we do not expect any further increase in the HCFA mercury content.

