

Covanta Lee, Inc.
A Covanta Energy Company
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NOV 12 2002

DIVISION OF AIR
RESOURCES MANAGEMENT

COVANTA
ENERGY

Trina. FYI

How
From: Howard

11/12

November 6, 2002

Mr. Howard L. Rhodes, Director
Division of Air Resource Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

NOV 12 2002

RE: **Addendum 2002 Compliance Stack Test Report** BUREAU OF AIR REGULATION

Dear Mr. Rhodes,

Attached please find one copy of an addendum to the **Lee County Solid Waste Resource Recovery Facility's compliance stack test report**. This testing was conducted June 18 - 21, 2002. The original test report was submitted on August 2, 2002.

If you have any questions regarding this matter, please do not hesitate to contact me. I can be reached during the day at (239) 337-2200.

0710119 - 001 - AV

Sincerely,



Thomas C. Eriksen
General Manager

cc: R. Blackburn - FDEP South Dist. (w/2-Encl.)
L. Sampson - Lee County (w/Encl.)
J. Aldina - Covanta Energy (w/Encl.)
B. Macionski - Covanta Energy (w/Encl.)
File



Mr. Tom Erikson
Lee County Resource Recovery Facility
10500 Buckingham Road
Ft. Myers, Florida 33905

Dear Mr. Erikson:

Enclosed are seven copies of the revisions to your facilities 2002 compliance test report No. 9146-2 dated July 31, 2002.

The revision pages are an addendum to the original report. The revisions are being made due to the IC laboratory not passing the original EPA HCl audit samples. New audit samples were sent to CleanAir Engineering by Martin Costello of the Florida Department of Environmental Protection (FDEP) and analyzed along with the archived samples that were taken from Units 1 and 2 during the original compliance test. The new audit results have been checked and have passed the FDEP's criteria for audits. The HCl results for each unit did vary slightly from the original reported concentrations.

The revised pages included are:

- Table 1-3 (Summary of Results)
- Table 2-3 (Unit 1 Economizer Outlet and Stack – Hydrogen Chloride)
- Table 2-7 (Unit 2 Economizer Outlet and Stack – Hydrogen Chloride)
- Hydrogen Chloride Parameters for the Economizer Outlet and Stack for Units 1 and 2
- The new HCl laboratory results for both units as well as the audit results

Please send a set of the amendments to anyone who holds a copy of the 9146-2 report.

I apologize for any inconvenience this has caused you or anyone at your facility. You can reach me at (847) 654-4544 if you have any questions about the data or comments about the revisions.

Respectfully submitted,

CLEAN AIR ENGINEERING


Scott Brown
Project Manager

SB/nl

COVANTA ENERGY
COVANTA LEE, INC.

Client Reference No: X1033 38-1-1
Clean Air Project No: 9146-2

ADDENDUM PAGES FOR REPORT 9146-2 – HCL REANALYSIS RESULTS

J

PROJECT OVERVIEW

1-4

**Table 1-3:
 Summary of Test Results**

<u>Source</u>	Three Run Average Emissions			Permit ¹
	Unit 1	Unit 2	Limit	
<u>Particulate</u>				
gr/dscf @ 7% O ₂	0.0024	0.0054		0.10
mg/dscm @ 7% O ₂	3.8	12.3		27
lbs/hr	1.36	3.07		5.34
<u>Hydrogen Chloride</u>				
ppm @ 7% O ₂	12.6	12.8		25
% removal ²	98.4	98.5		95
<u>PCDDs/PCDFs</u>				
ng/dscm @ 7% O ₂ (Total)	4.3	NA		30
lbs/MMBtu (heat input)	3.97E-09	NA		2.54 E-08
lbs/hr	1.09E-06	NA		7.0 E-06
<u>Cadmium</u>				
mg/dscm @ 7% O ₂	0.0012	0.0036		0.040
<u>Lead</u>				
mg/dscm @ 7% O ₂	0.029	0.036		0.44
lbs/MMBtu	2.60E-05	3.27E-05		0.00060
lbs/hr	0.0075	0.0091		0.165
<u>Mercury</u>				
mg/dscm @ 7% O ₂	0.012	0.011		0.070
% removal ²	94.8	91.9		> 85
lbs/hr	0.0031	0.0028		0.0379

RESULTS

**Table 2-3:
 Unit 1 Economizer Outlet and Stack - Hydrogen Chloride**

Run No.	1	2	3	Average
Date (2002)	June 20	June 20	June 20	
Start Time (approx.)	08:39	11:49	14:44	
Stop Time (approx.)	09:43	12:49	15:44	
<u>Economizer Outlet Gas Conditions¹</u>				
O ₂ Oxygen (dry volume %)	10.8	11.1	10.9	10.9
CO ₂ Carbon dioxide (dry volume %)	8.3	8.0	8.5	8.3
T _s Temperature (°F)	425	435	430	430
B _{wo} Moisture (volume %)	16.3	15.0	15.0	15.4
Q _{std} Volumetric flow rate (dscfm)	99,320	101,700	100,100	100,400
<u>Stack Gas Conditions¹</u>				
O ₂ Oxygen (dry volume %)	11.1	11.1	11.0	11.1
CO ₂ Carbon dioxide (dry volume %)	8.1	7.9	8.1	8.0
T _s Temperature (°F)	291	292	292	292
B _{wo} Moisture (volume %)	21.0	20.4	19.7	20.4
Q _{std} Volumetric flow rate (dscfm)	97,610	97,950	97,050	97,540
<u>Hydrogen Chloride</u>				
<u>Economizer Outlet</u>				
C Concentration (ppmdv)	521	584	611	572
C Concentration @ 7% O ₂ (ppm)	717	829	849	798
C Concentration (mg/dscm)	790	886	926	867
E Emission rate (lb/hr)	294	337	347	326
E Emission rate (lb/MMBtu) ²	0.98	1.1	1.2	1.1
<u>Stack</u>				
C Concentration (ppmdv)	9.9	8.9	7.9	8.9
C Concentration @ 7% O ₂ (ppm)	14.0	12.7	11.0	12.6
C Concentration (mg/dscm)	15.0	13.5	11.9	13.5
E Emission rate (lb/hr)	5.5	5.0	4.3	4.9
E Emission rate (lb/MMBtu) ²	0.019	0.017	0.015	0.017
RE Removal efficiency, % (lb/hr based)	98.1	98.5	98.8	98.5
RE Removal efficiency, % (ppm @ 7% O ₂ based)	98.0	98.5	98.7	98.4

¹ Gas conditions were obtained from concurrent Method 29 testing.

² Based on an F_d factor of 9570 dscf/MMBtu.

RESULTS**Table 2-7:
Unit 2 Economizer Outlet and Stack - Hydrogen Chloride**

Run No.	1	2	3	Average
Date (2002)	June 19	June 19	June 19	
Start Time (approx.)	08:49	13:17	15:17	
Stop Time (approx.)	10:05	14:17	16:17	
Economizer Outlet Gas Conditions¹				
O ₂ Oxygen (dry volume %)	12.8	10.5	10.2	11.2
CO ₂ Carbon dioxide (dry volume %)	6.5	8.8	9.2	8.2
T _s Temperature (°F)	433	428	434	431
B _{wo} Moisture (volume %)	14.1	16.9	16.7	15.9
Q _{std} Volumetric flow rate (dscfm)	89,340	90,360	90,570	90,090
Stack Gas Conditions¹				
O ₂ Oxygen (dry volume %)	10.8	11.0	11.0	10.9
CO ₂ Carbon dioxide (dry volume %)	8.2	8.5	8.4	8.4
T _s Temperature (°F)	297	297	297	297
B _{wo} Moisture (volume %)	21.8	21.2	20.2	21.1
Q _{std} Volumetric flow rate (dscfm)	96,010	92,360	93,490	93,950
Hydrogen Chloride				
Economizer Outlet				
C Concentration (lb/dscf)	4.17E-05	6.74E-05	6.31E-05	5.74E-05
C Concentration (ppmdv)	440	712	667	606
C Concentration @ 7% O ₂ (ppm)	755	952	866	858
C Concentration (mg/dscm)	667	1079	1011	919
E Emission rate (lb/hr)	223	365	343	310
E Emission rate (lb/MMBtu) ²	1.0	1.3	1.2	1.2
Stack				
C Concentration (lb/dscf)	9.02E-07	8.55E-07	8.47E-07	8.68E-07
C Concentration (ppmdv)	9.5	9.0	9.0	9.2
C Concentration @ 7% O ₂ (ppm)	13.1	12.7	12.6	12.8
C Concentration (mg/dscm)	14.5	13.7	13.6	13.9
E Emission rate (lb/hr)	5.2	4.7	4.8	4.9
E Emission rate (lb/MMBtu) ²	0.018	0.017	0.017	0.017
RE Removal efficiency (lb/hr based %)	97.7	98.7	98.6	98.3
RE Removal efficiency (ppm @ 7% O ₂ based)	98.3	98.7	98.5	98.5

¹ Gas conditions were obtained from concurrent Method 29 testing.² Based on an F_d factor of 9570 dscf/MMBtu.

COVANTA LEE, INC.
 Clean Air Project No: 9146
 Unit 1 Stack

**HYDROGEN CHLORIDE
 PARAMETERS**

Run No.	1	2	3
Date (2002)	June 20	June 20	June 20
Start Time (approx.)	08:39	11:49	14:44
Stop Time (approx.)	09:43	12:49	15:44
Gas Conditions			
O ₂ Oxygen (dry volume %)	11.1	11.1	11.0
CO ₂ Carbon dioxide (dry volume %)	8.1	7.9	8.1
V _{mstd} Volume metered, standard (ft ³)	31.0	31.1	31.2
Q _{std} Volumetric flow rate, standard (dscfm) ¹	97,610	97,950	97,050
F _d Fuel factor (dscf/10 ⁶ Btu)	9,570	9,570	9,570
Hydrogen Chloride (HCl)			
m Mass of Cl (mg)	12.80	11.58	10.23
m Mass of HCl (mg)	13.16	11.91	10.52
C Concentration (lb/dscf)	9.36E-07	8.45E-07	7.44E-07
C Concentration (ppmdv)	9.9	8.9	7.9
C Concentration, corrected to 7% O ₂ (ppm)	14.0	12.7	11.0
C Concentration, corrected to 12% CO ₂ (ppm)	14.7	13.6	11.6
C Concentration (mg/dscm)	15.0	13.5	11.9
E Emission rate (lb/hr)	5.48	4.97	4.33
E Emission rate (lb/10 ⁶ Btu)	1.91E-02	1.73E-02	1.50E-02

¹ Volumetric flow rates were obtained from concurrent Method 29 testing.

COVANTA LEE, INC.
 Clean Air Project No: 9146
 Unit 1 Economizer Outlet

**HYDROGEN CHLORIDE
 PARAMETERS**

Run No.	1	2	3
Date (2002)	June 20	June 20	June 20
Start Time (approx.)	08:39	11:49	14:44
Stop Time (approx.)	09:43	12:49	15:44
Gas Conditions			
O ₂ Oxygen (dry volume %)	10.8	11.1	10.9
CO ₂ Carbon dioxide (dry volume %)	8.3	8.0	8.5
V _{mstd} Volume metered, standard (ft ³)	33.3	33.4	33.0
Q _{std} Volumetric flow rate, standard (dscfm) ¹	99,320	101,700	100,100
F _d Fuel factor (dscf/10 ⁹ Btu)	9,570	9,570	9,570
Hydrogen Chloride (HCl)			
m Mass of Cl (mg)	724.28	814.23	842.11
m Mass of HCl (mg)	744.87	837.38	866.05
C Concentration (lb/dscf)	4.93E-05	5.53E-05	5.78E-05
C Concentration (ppmdv)	521.0	584.5	610.7
C Concentration, corrected to 7% O ₂ (ppm)	717.0	829.0	848.9
C Concentration, corrected to 12% CO ₂ (ppm)	753.3	876.7	862.2
C Concentration (mg/dscm)	789.7	885.9	925.8
E Emission rate (lb/hr)	293.80	337.48	347.11
E Emission rate (lb/10 ⁹ Btu)	9.76E-01	1.13E+00	1.16E+00

¹ Volumetric flow rates were obtained from concurrent Method 29 testing.

COVANTA LEE, INC.
 Clean Air Project No: 9146
 Unit 2 Stack

**HYDROGEN CHLORIDE
 PARAMETERS**

Run No.	1	2	3
Date (2002)	June 19	June 19	June 19
Start Time (approx.)	08:49	13:17	15:17
Stop Time (approx.)	10:05	14:17	16:17
Gas Conditions			
O ₂ Oxygen (dry volume %)	10.8	11.0	11.0
CO ₂ Carbon dioxide (dry volume %)	8.2	8.5	8.4
V _{mstd} Volume metered, standard (ft ³)	31.1	30.4	30.7
Q _{std} Volumetric flow rate, standard (dscfm) ¹	96,010	92,360	93,490
F _d Fuel factor (dscf/10 ⁹ Btu)	9,570	9,570	9,570
Hydrogen Chloride (HCl)			
m Mass of Cl (mg)	12.37	11.48	11.48
m Mass of HCl (mg)	12.72	11.81	11.81
C Concentration (lb/dscf)	9.02E-07	8.55E-07	8.47E-07
C Concentration (ppmdv)	9.5	9.0	9.0
C Concentration, corrected to 7% O ₂ (ppm)	13.1	12.7	12.6
C Concentration, corrected to 12% CO ₂ (ppm)	14.0	12.8	12.8
C Concentration (mg/dscm)	14.5	13.7	13.6
E Emission rate (lb/hr)	5.20	4.74	4.75
E Emission rate (lb/10 ⁹ Btu)	1.79E-02	1.73E-02	1.71E-02

¹ Volumetric flow rates were obtained from concurrent Method 29 testing.

COVANTA LEE, INC.
 Clean Air Project No: 9146
 Unit 2 Economizer Outlet

**HYDROGEN CHLORIDE
 PARAMETERS**

Run No.	1	2	3
Date (2002)	June 19	June 19	June 19
Start Time (approx.)	08:49	13:17	15:17
Stop Time (approx.)	10:05	14:17	16:17
Gas Conditions			
O ₂ Oxygen (dry volume %)	12.8	10.5	10.2
CO ₂ Carbon dioxide (dry volume %)	6.5	8.8	9.2
V _{mstd} Volume metered, standard (ft ³)	31.5	32.9	31.5
Q _{std} Volumetric flow rate, standard (dscfm) ¹	89,340	90,360	90,570
F _d Fuel factor (dscf/10 ⁹ Btu)	9,570	9,570	9,570
Hydrogen Chloride (HCl)			
m Mass of Cl (mg)	579.54	979.14	877.78
m Mass of HCl (mg)	596.02	1006.98	902.73
C Concentration (lb/dscf)	4.17E-05	6.74E-05	6.31E-05
C Concentration (ppmdv)	440.2	712.0	666.7
C Concentration, corrected to 7% O ₂ (ppm)	755.4	951.7	866.0
C Concentration, corrected to 12% CO ₂ (ppm)	812.7	971.0	869.6
C Concentration (mg/dscm)	667.3	1079.3	1010.5
E Emission rate (lb/hr)	223.30	365.31	342.83
E Emission rate (lb/10 ⁹ Btu)	1.03E+00	1.30E+00	1.18E+00

¹ Volumetric flow rates were obtained from concurrent Method 29 testing.



CERTIFICATE OF ANALYSIS

Client Name:	Covanta Lee	Date Received:	
Plant/Facility:		Date Reported:	10/23/2002
Project Number:	9146	Sample Type:	Method 26A
Sample Numbers:	-01 through -13	Parameters:	Chloride

Laboratory Number	Sample Identification	Sample Volume (ml)	Sample Conc. (mg/l)	Total Chloride	
				as Cl ⁻ (mg)	as HCl (mg)
		Reagent Blank			
9146-01	Blank	268	<0.057	<0.0153	<0.0158
		Unit 1 Inlet			
9146-05	Run 1	722	974.74	724.28 *	744.87
9146-06	Run 2	568	1,433.50	814.23	837.38
9146-04	Run 3	676	1,246.46	842.11	866.05
		Unit 1 Outlet			
9146-02	Run 1	735	16.37	12.80 *	13.17
9146-03	Run 2	718	16.07	11.58 *	11.91
9146-07	Run 3	624	16.40	10.23	10.52
		Unit 2 Inlet			
9146-08	Run 1	698	830.88	579.54	596.01
9146-09	Run 2	682	1,435.26	979.14	1,006.97
9146-10	Run 3	687	1,277.88	877.78	902.73
		Unit 2 Outlet			
9146-11	Run 1	589	21.43	12.37 *	12.72
9146-12	Run 2	782	14.67	11.48	11.80
9146-13	Run 3	681	16.74	11.48 *	11.81
		Audit Samples			
9146-14	K1632		78.25	* Third analysis used	
9146-15	J2632		701.14		

<u>Matrix Spike Analysis</u>	
9146-10	101.0%
9146-02	101.6%

<u>% Recovery</u>	
9146-10	101.0%
9146-02	101.6%

Analyst: Kurt Fischer
 Kurt Fischer

CleanAir

CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
 Analyte Chloride
 Date 10/23/2002
 Stock Cal Conc. 1000.75 mg/l
 Working Stock Conc. 10.0075 mg/l

Analyte:

Chloride Standards Calibration Data

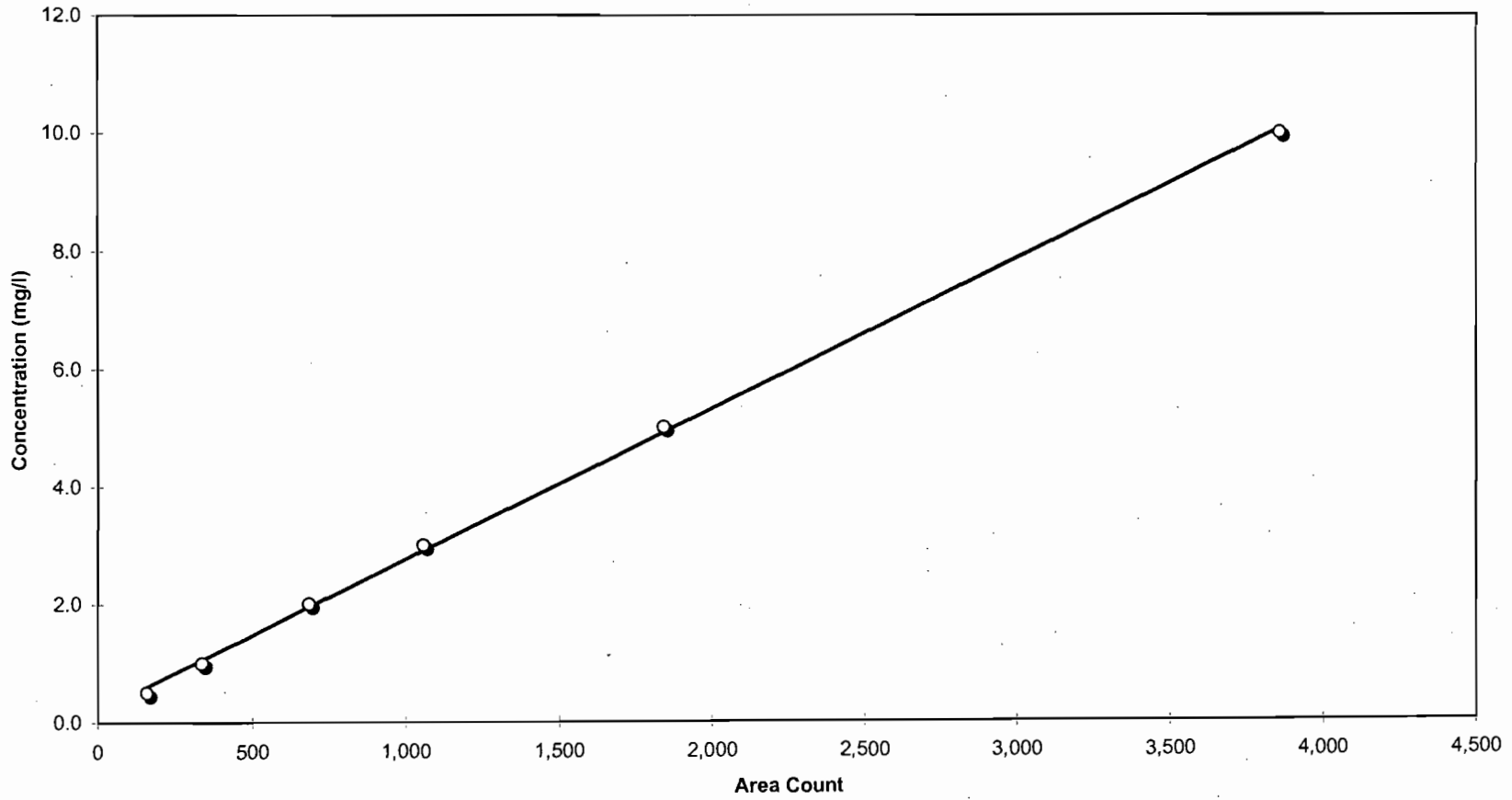
Calibration Point Conc. (mg/l)	1	2	3	4	5	7
	0.5004	1.0008	2.0015	3.0023	5.0038	10.0075
Pre-Cal 1 Trial 1	160.79	340.60	708.71	1,037.37	1,823.38	3,872.44
Pre-Cal 1 Trial 2	164.71	348.19	689.76	1,039.03	1,891.58	3,834.99
Post-Cal 1 Trial 1			675.81			
Post-Cal 1 Trial 2			674.96			
Pre-Cal 2 Trial 1			687.62			
Pre-Cal 2 Trial 2			659.45			
Post-Cal 2 Trial 1	151.33	346.81	682.65	1,073.76	1,827.68	3,856.64
Post-Cal 2 Trial 2	159.68	309.76	703.03	1,079.71	1,829.59	3,861.61
Average	159.13	336.34	685.25	1,057.47	1,843.06	3,856.17
%RSD	3.54	5.36	2.31	2.12	1.76	0.41
Response Factor	3.14E-03	2.98E-03	2.92E-03	2.84E-03	2.71E-03	2.60E-03
Avg RF=	2.86E-03					
%RSD Resp. Factor	6.79					

Measured Area Counts (Counts)	Actual Concentration (ppm)	Regression Concentration (ppm)	Difference pt-Line (% Scale)	Is Difference Less Than 2% of Scale?	Difference pt-Line (Relative %)	Is Relative Difference Less Than 10%?
159.13	0.500	0.606	-2.10%	No	-21.01%	No
336.34	1.001	1.059	-1.17%	Yes	-5.86%	Yes
685.25	2.002	1.953	0.97%	Yes	2.43%	Yes
1,057.47	3.002	2.906	1.92%	Yes	3.20%	Yes
1,843.06	5.004	4.918	1.71%	Yes	1.71%	Yes
3,856.17	10.008	10.074	-1.33%	Yes	-0.66%	Yes
Regression Constants			Is Coefficient of Regression > 0.995? Yes			
Slope	m =	2.56E-03				
Intercept	b =	0.1980				
Coeff.	R ² =	0.99939				

CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
Analyte Chloride
Date 10/23/2002

Chloride Calibration Curve



CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
 Analyte Chloride
 Date 10/23/2002

MDL= 0.057 mg/l

Sample Location	Sample Identification Number	Customer Sample Identification	Area Counts			Area Count Duplicate Difference	Is Duplicate Within Control Limits ?	Duplicate Relative Difference (%)	DF (Analysis Dilution Factor)	V _{soln} (Total Sample Volume, ml)	C _{reg} (Concentration, mg/l from Reg Curve)	C _{resp} (Concentration, mg/l from Resp Factor)	M _{analyte} Total Amount of Analyte (mg)
			Trial 1	Trial 2	Average								
Reagent Blank	9146-01	Blank	0.0	0.00	0.00	na	na	1	268	LDL	LDL	<0.015	
Unit 1 Inlet	9146-05	Run 1	1827.3	1824.0	1825.68	3.3	Yes	0.2%	200	722	974.74	1,046.11	703.76
	9146-06	Run 2	2795.6	2647.1	2721.33	148.5	No	5.5%	200	568	1,433.50	1,559.32	814.23
Unit 1 Outlet	9146-04	Run 3	2318.8	2393.5	2356.2	74.7	Yes	3.2%	200	676	1,246.46	1,350.09	842.11
	9146-02	Run 1	1512.2	1529.0	1520.6	16.8	Yes	1.1%	4	735	16.37	17.43	12.04
	9146-03	Run 2	1536.7	1445.5	1491.1	91.2	Yes	6.1%	4	718	16.07	17.09	11.54
Unit 2 Inlet	9146-07	Run 3	1554.3	1492.2	1523.3	62.1	Yes	4.1%	4	624	16.40	17.46	10.23
	9146-08	Run 1	1578.2	1511.4	1544.8	66.8	Yes	4.3%	200	698	830.88	885.18	579.54
	9146-09	Run 2	2718.4	2731.2	2724.8	12.8	Yes	0.5%	200	682	1,435.26	1,561.29	979.14
Unit 2 Outlet	9146-10	Run 3	2415.9	2419.2	2417.5	3.3	Yes	0.1%	200	687	1,277.88	1,385.24	877.78
	9146-11	Run 1	2023.7	2005.4	2014.5	18.2	Yes	0.9%	4	589	21.43	23.09	12.61
	9146-12	Run 2	1395.5	1314.4	1354.9	81.1	Yes	6.0%	4	782	14.67	15.53	11.48
Audit Sample	9146-13	Run 3	1602.0	1511.9	1557.0	90.1	Yes	5.8%	4	681	16.74	17.84	11.39
	9146-14	K1632	1448.6	1452.3	1450.4	3.7	Yes	0.3%	20		78.25	83.11	
	9146-15	J2632	1288.4	1294.7	1291.5	6.4	Yes	0.5%	200		701.14	740.05	

Samples that were >10% relative difference from first analysis are rediluted and reanalyzed below

Unit 1 Inlet	9146-5 redo	Run 1	1916.7	1845.6	1881.2	71.1	Yes	3.8%	200	722	1,003.15	1,077.90	724.28
Unit 1 Outlet	9146-2 redo	Run 1	1635.3	1609.8	1622.6	25.5	Yes	1.6%	4	735	17.41	18.59	12.80
	9146-3 redo	Run 2	1522.2	1472.3	1497.3	49.9	Yes	3.3%	4	718	16.13	17.16	11.58
Unit 2 Outlet	9146-11 redo	Run 1	1977.3	1971.8	1974.6	5.4	Yes	0.3%	4	589	21.02	22.63	12.37
	9146-13 redo	Run 3	1544.5	1595.3	1569.9	50.8	Yes	3.2%	4	681	16.87	17.99	11.48

Spike Recovery

Matrix Spike	9146-10	Run 3	3148.7	3161.7	3155.2								101.0%
	9117-02	Run 1	1686.2	1707.5	1696.9								101.6%

	Variable	Value
Control Limits	R _{avg}	46
	D ₄	3.268
Analyses	UCL	152
	UWL	148
	LCL	0
	LWL	0

CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
 Analyte Chloride
 Date 10/23/2002

		First Analysis		Second Analysis		
Sample Location	Sample Identification Number	Customer Sample Identification	M _{analyte} Total Amount of Analyte (mg)	M _{analyte} Total Amount of Analyte (mg)	Difference	M _{analyte} Relative Difference (%) from First Analysis
Reagent Blank	9146-01	Blank	<0.010	<0.015	na	na
Unit 1 Inlet	9146-05	Run 1	865.43	703.76	161.7	20.6%
	9146-06	Run 2	829.75	814.23	15.5	1.9%
	9146-04	Run 3	875.3	842.11	33.2	3.9%
Unit 1 Outlet	9146-02	Run 1	13.88	12.04	1.8	14.2%
	9146-03	Run 2	15.38	11.54	3.8	28.6%
	9146-07	Run 3	10.74	10.23	0.5	4.8%
Unit 2 Inlet	9146-08	Run 1	634.49	579.54	55.0	9.1%
	9146-09	Run 2	923.43	979.14	55.7	5.9%
	9146-10	Run 3	838.55	877.78	39.2	4.6%
Unit 2 Outlet	9146-11	Run 1	11.04	12.61	1.6	13.3%
	9146-12	Run 2	10.64	11.48	0.8	7.6%
	9146-13	Run 3	13.41	11.39	2.0	16.3%

		First Analysis		Third Analysis		
Sample Location	Sample Identification Number	Customer Sample Identification	M _{analyte} Total Amount of Analyte (mg)	M _{analyte} Total Amount of Analyte (mg)	Difference	M _{analyte} Relative Difference (%) from First Analysis
Unit 1 Inlet	9146-5 redo	Run 1	865.43	724.28	141.2	17.8%
Unit 1 Outlet	9146-2 redo	Run 1	13.88	12.80	1.1	8.1%
	9146-3 redo	Run 2	15.38	11.58	3.8	28.2%
Unit 2 Outlet	9146-11 redo	Run 3	11.04	12.37	1.3	11.4%
	9146-13 redo	Run 1	13.41	11.48	1.9	15.5%

CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
 Analyte Chloride
 Date 10/23/2002

Determination of Detection Limit

(in accordance with 40 CFR 136, Appendix B)

Analyte	Chloride	n	$t_{(n-1,0.99)}$
Trial 1	149.00	7	3.143
Trial 2	159.11	8	2.998
Trial 3	142.75	9	2.896
Trial 4	154.76	10	2.821
Trial 5	147.62	11	2.764
Trial 6	151.08	16	2.602
Trial 7	133.50	21	2.528
Trial 8	156.42		
Trial 9	150.08		
Average	149.4		
Std Dev	7.7		
RMS Dev	5.16%		

Average Response Factor	4.41E-07
Measured Concentration (mg/l)	
Trial 1	0.580
Trial 2	0.605
Trial 3	0.564
Trial 4	0.594
Trial 6	0.576
Trial 7	0.585
Trial 7	0.540
Trial 8	0.599
Trial 9	0.582
Average	0.581
Std Dev	0.0198
RMS Dev	3.40%
$t_{(n-1,0.99)}$	2.896
Det Lim (mg/l)	0.057

Actual Conc 0.5004
 Slope 2.56E-03
 Intercept 0.1980
 Coeff of Corr 0.9994

CHROMATOGRAPHIC DATA REDUCTION

Client Covanta Lee
 Analyte Chloride
 Date 10/23/2002

Determination of Control Limits for Duplicate Analyses

$$R_i = |AreaCount_1 - AreaCount_2|$$

$$R_{avg} = \frac{\sum_{i=1}^n R_i}{n}$$

Where: n = Number of duplicates
 R_i = Range for each set of duplicates
 D₄ = Constant (3.268 for duplicates)
 UCL = Upper Control Limit
 UWL = Upper Warning Limit
 LCL = Lower Control Limit
 LWL = Lower Warning Limit

$$UCL = D_4 R_{avg}$$

$$UWL = \frac{2}{3} (D_4 R_{avg}) + R_{avg}$$

Note: For duplicates, both LCL and LWL are zero.

Variable	Value
R _{avg}	46
D ₄	3.268
UCL	152
UWL	148
LCL	0
LWL	0

Values for 9146-07	
m	2.561E-03
b	0.1980
AreaCount	1,523
DF	4
RF _{avg}	2.865E-03
V _{soln}	624.1
C _{reg}	16.40
C _{resp}	17.46
M _{Analyte}	10.23

Determination of Concentration of Analyte

$$C_{reg} = [m(AreaCount) + b]DF$$

Where: C_{reg} = Analyte concentration from regression curve (mg/l)
 m = Slope of regression curve
 b = Y-Intercept of regression curve
 AreaCount = Average area count from duplicate analyses
 DF = Sample dilution factor

$$C_{resp} = RF_{avg} (AreaCount)DF$$

Where: C_{resp} = Analyte concentration from response factors (mg/l)
 RF_{avg} = Average response factor for analyte (ppm/Area Count)
 DF = Sample dilution factor

$$M_{Analyte} = \frac{C_{reg} (V_{soln})}{1000}$$

Where: M_{Analyte} = Total amount of analyte in sample (mg)
 C_{reg} = Analyte concentration from regression curve (mg/l)
 V_{soln} = Total sample volume (ml)
 1000 = Conversion factor (ml/l)

Covanta Lee, Inc.
A Covanta Energy Company
10500 Buckingham Road
Fort Myers, FL 33905
Tel 941 337 2200
Fax 941 337 2510

June 27, 2003

Mr. Scott Sheplak, P.E.
Title V Program Administrator
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

JUN 30 2003

BUREAU OF AIR REGULATION

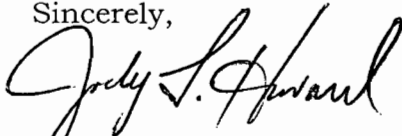
Subject: Additional Title V Responsible Officials
Title V Operating Permit No. 0710119-001-AV

Dear Mr. Sheplak:

The Lee County Solid Waste Resource Recovery Facility is designating myself, Jody Howard, Facility Manager of Covanta Lee, Inc. as an additional responsible official. Enclosed, please find Form No. 62-213.900(8), entitled "Responsible Official Notification Form" that is signed by the facility's primary responsible official. Please note, Mr. Thomas Eriksen is no longer a designated responsible official for the Lee County Solid Waste Resource Recovery Facility.

If you have any questions regarding this matter, please do not hesitate to contact me. I can be reached during the day at (239) 337-2200.

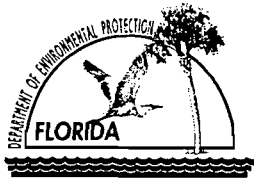
Sincerely,



Jody L. Howard
Facility Manager

cc: L. Sampson, Lee County
R. Blackburn, FDEP-SD
B. Macionski, Covanta
K. Stepsus, Covanta
S. Bass, Covanta
File

(Enclosure)



Department of Environmental Protection

RECEIVED

JUN 30 2003

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM BUREAU OF AIR REGULATION

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Lee County Solid Waste Division	
2. Site Name: Lee County Solid Waste Resource Recovery Facility	3. County: Lee County
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): Permit Number 070119-001-AV	

Notification Type (Check one or more)

INITIAL:	Notification of responsible officials for an initial Title V application.
RENEWAL:	Notification of responsible officials for a renewal Title V application.
X CHANGE:	Notification of change in responsible official(s).
	Effective date of change in responsible official(s) <u>June 23, 2003</u>

Primary Responsible Official

1. Name and Position Title of Responsible Official: Mr. Lindsey J. Sampson, P.E. Director
2. Responsible Official Mailing Address: Organization/Firm: Lee County Solid Waste Division Street Address: 10500 Buckingham Road City: Fort Myers State: FL Zip Code: 33905
3. Responsible Official Telephone Numbers: Telephone: (239) - 338-3302 Fax: (239) - 461-5971
4. Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Christy J. Sampson

Signature

6/26/03

Date

Additional Responsible Official

1. Name and Position Title of Responsible Official: Mr. Jody L. Howard, Facility Manager
2. Responsible Official Mailing Address: Jody L. Howard, Facility Manager Organization/Firm: Covanta Lee, Inc. Street Address: 10500 Buckingham Road, Suite 400 City: Fort Myers State: FL Zip Code: 33905
3. Responsible Official Telephone Numbers: Telephone: (239) - 337-2200 Fax: (239) - 337-2510
4. Responsible Official Qualification (<i>Check one or more of the following options, as applicable</i>): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
2. Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Responsible Official Telephone Numbers: Telephone: () - Fax: () -
4. Responsible Official Qualification (<i>Check one or more of the following options, as applicable</i>): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.