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October 1, 2010

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Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 1 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 1 Scrubbed Stack. This test was conducted on September 2, 2010 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.80 lbs/mmbtu for the Unit 1 Scrubbed Stack. The measured average emission rates were 0.023 lbs/mmbtu for the Unit 1 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter BP 9/27/10

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE EMISSIONS
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG PLANT
UNIT 1
September 2, 2010

Job # 10-394

Test Report Date: 09-23-10

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light, at the Petersburg Plant, Unit 1.

PARTICULATE EMISSIONS

Method 5

Run #	Description	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	Unit 1	09-02-10	1.29E-06	56.84	0.020
2	Unit 1	09-02-10	1.63E-06	71.44	0.026
3	Unit 1	09-02-10	1.44E-06	62.95	0.022
AVG.			**1.45E-06**	**63.74**	**0.023**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis
Method 5

IP&L
Petersburg
Unit 1
10-394

Run Number			1	2	3
Date			9/2/2010	9/2/2010	9/2/2010
Location			Unit 1	Unit 1	Unit 1
Comment			Method 5	Method 5	Method 5
Start Time			8:48	11:10	12:30
End Time			10:54	12:16	13:36
Barometric Pressure	In. Hg.	Pb	29.67	29.67	29.67
Static Pressure	In. H2O	Pf	-1.1	-1.1	-1.1
Volume of Condensate	mls.	Vlc	116	134	125
Volume Sampled	dcf	Vm	44.449	46.499	45.914
Meter Correction Factor		Y	0.994	0.994	0.994
Square Root of Delta P			0.717	0.720	0.716
Orifice Pressure	In. H2O		1.743	1.919	1.885
Meter Temperature	Degree F		105	111	112
Flue Temperature	Degree F		121	123	125
Percent CO2	%		11.3	11.0	11.1
Percent O2	%		7.5	8.2	7.8
Diameter of Nozzle	In.		0.255	0.255	0.255
Area of Flue	Sq. ft.		363.05	363.05	363.05
Sample Time	min.		60	60	60
Weight Gain	grams		0.0240	0.0315	0.0274
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.59	29.59	29.59
Corrected Sample Volume	dscf	Vms	41.12	42.58	41.97
Moisture of Flue Gas	%	Bws	11.74%	12.92%	12.31%
Molecular Weight	lb/lb-mole	Ms	28.69	28.53	28.60
Velocity of Flue Gas	fps	Vs	42.60	42.97	42.75
Volume of Flue Gas	ACFM	Vo	927,927	936,032	931,231
Volume of Flue Gas	DSCFM	Qsd	736,053	730,038	728,852
Dust Concentration	lb/dscf	Wd	1.29E-06	1.63E-06	1.44E-06
Dust Concentration	lb/hr	Wh	56.84	71.44	62.95
Dust Concentration	gr/acf	Wa	7.15E-03	8.90E-03	7.89E-03
Dust Concentration	gr/dscf	Ws	9.01E-03	1.14E-02	1.01E-02
Isokinetic Rate	%	%I	95.3	99.5	98.3
Particulate Emissions	lb/mmBtu	DI	0.020	0.026	0.022

Averages:	Flue Temp.:	123	Part. Emis:	lb/dscf	1.45E-06
	ACFM:	931,730		lb/hr	63.74
	DSCFM:	731,648		gr/acf	7.98E-03
	Percent O2:	7.83%		gr/dscf	1.02E-02
				lb/mmBtu	0.023

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October 1, 2012

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STATE OF INDIANA
DEPT. OF ENVIRONMENTAL MANAGEMENT
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Hand Delivered

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 1 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 1 Scrubbed Stack. This test was conducted on August 21, 2012 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.80 lbs/mmbtu for the Unit 1 Scrubbed Stack. The measured average emission rates were 0.022 lbs/mmbtu for the Unit 1 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG STATION
UNIT 1
August 21, 2012

Job # 12-282

Test Report Date: 09-13-12

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Station on Unit 1.

PARTICULATE EMISSIONS

Method 5

Run	Description	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	Method 5	08-21-12	1.46E-06	71.01	0.028
2	Method 5	08-21-12	1.06E-06	51.42	0.021
3	Method 5	08-21-12	7.84E-07	37.30	0.015
AVG.			**1.10E-06**	**53.24**	**0.022**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis

IP&L
Petersburg
Unit 1
12-282

Run Number			1	2	3
Date			8/21/2012	8/21/2012	8/21/2012
Location			Unit 1	Unit 1	Unit 1
Comment			Method 5	Method 5	Method 5
Start Time			7:58	9:33	11:11
End Time			9:05	10:48	12:17
Barometric Pressure	In. Hg.	Pb	29.8	29.8	29.8
Static Pressure	In. H2O	Pf	0.7	0.7	0.7
Volume of Condensate	mls.	Vlc	134	110	128
Volume Sampled	dcf	Vm	45.199	45.312	44.707
Meter Correction Factor		Y	0.982	0.982	0.982
Square Root of Delta P			0.780	0.777	0.765
Orifice Pressure	In. H2O		1.866	1.873	1.825
Meter Temperature	Degree F		92	96	97
Flue Temperature	Degree F		120	121	120
Percent CO2	%		9.5	9.4	9.4
Percent O2	%		10.4	10.5	10.5
Diameter of Nozzle	In.		0.239	0.239	0.239
Area of Flue	Sq. ft.		363.05	363.05	363.05
Sample Time	min.		60	60	60
Weight Gain	grams		0.0282	0.0203	0.0148
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.85	29.85	29.85
Corrected Sample Volume	dscf	Vms	42.48	42.28	41.64
Moisture of Flue Gas	%	Bws	12.95%	10.93%	12.66%
Calculated Saturated Moisture	%	Bwsat	11.54%	11.87%	11.54%
Moisture used for Calculations	%	Bwsu	11.54%	10.93%	11.54%
Molocular Weight	lb/lb-mole	Ms	28.56	28.62	28.55
Velocity of Flue Gas	fps	Vs	46.20	46.01	45.32
Volume of Flue Gas	ACFM	Vo	1,006,406	1,002,294	987,235
Volume of Flue Gas	DSCFM	Qsd	808,558	809,479	793,157
Dust Concentration	lb/dscf	Wd	1.46E-06	1.06E-06	7.84E-07
Dust Concentration	lb/hr	Wh	71.01	51.42	37.30
Dust Concentration	gr/acf	Wa	8.23E-03	5.99E-03	4.41E-03
Dust Concentration	gr/dscf	Ws	1.02E-02	7.41E-03	5.49E-03
Isokinetic Rate	%	%I	103.7	101.5	103.3
Particulate Emissions	lb/mmBtu	DI	0.028	0.021	0.015

Averages:	Flue Temp.:	120.3333	Part. Emis:	lb/dscf	1.10E-06
	ACFM:	998,645		lb/hr	53.24
	DSCFM:	803,731		gr/acf	6.21E-03
	Percent O2:	10.47%		gr/dscf	7.71E-03
				lb/mmBtu	0.022

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October 29, 2014

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Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 1 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 1 Scrubbed Stack. This test was conducted on September 23, 2014 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.80 lbs/mmbtu for the Unit 1 Scrubbed Stack. The measured average emission rates were 0.057 lbs/mmbtu for the Unit 1 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG GENERATION STATION
UNIT 1

September 23, 2014

Job # 14-375

Test Report Date: 10-16-14

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Generation Station, Unit 1.

PARTICULATE EMISSIONS

Method 5

Run	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	09-23-14	3.67E-06	164.61	0.061
2	09-23-14	3.01E-06	136.91	0.050
3	09-23-14	3.59E-06	162.30	0.059
AVG.		**3.42E-06**	**154.61**	**0.057**

The filter exit temperature drops below 223° for 3 points on Run 1 when the oven impinger portion of the train was extended outside of the stack. This was discussed with Jared Fisher and the testing continued with no effect on the final results.

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.
Particulate Analysis

IP&L
Petersburg
Unit 1
14-375

Run Number			1	2	3
Date			9/23/2014	9/23/2014	9/23/2014
Location			Stack	Stack	Stack
Comment			Method 5	Method 5	Method 5
Start Time			10:22	12:36	14:45
End Time			11:47	13:51	16:00
Barometric Pressure	In. Hg.	Pb	30.02	30.02	30.02
Static Pressure	In. H2O	Pf	2.1	2.1	1.9
Condensate Collected	grams	Vlc	141	149	134
Volume Sampled	dcf	Vm	44.510	45.075	45.070
Meter Correction Factor		Y	0.974	0.974	0.974
Pitot Tube Correction Factor		Pc	0.840	0.840	0.840
Square Root of Delta P			0.727	0.731	0.729
Orifice Pressure	In. H2O		1.797	1.826	1.814
Meter Temperature	Degree F		89	90	91
Flue Temperature	Degree F		123	121	122
Percent CO2	%		10.9	11.0	11.0
Percent O2	%		8.7	8.5	8.5
Diameter of Nozzle	In.		0.250	0.250	0.250
Area of Flue	Sq. ft.		363.05	363.05	363.05
Sample Time	min.		60	60	60
Weight Gain	grams		0.0699	0.0580	0.0691
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	30.17	30.17	30.16
Corrected Sample Volume	dscf	Vms	42.02	42.48	42.39
Measured Moisture of Flue Gas	%	Bws	13.66%	14.19%	12.97%
Calculated Saturated Moisture	%	Bwsat	12.41%	11.74%	12.08%
Moisture used for Calculations	%	Bwsu	12.41%	11.74%	12.08%
Molecular Weight	lb/lb-mole	Ms	28.59	28.68	28.64
Velocity of Flue Gas	fps	Vs	42.92	43.01	42.97
Volume of Flue Gas	ACFM	Vo	934,850	936,946	936,074
Volume of Flue Gas	DSCFM	Qsd	747,911	757,888	752,654
Dust Concentration	lb/dscf	Wd	3.67E-06	3.01E-06	3.59E-06
Dust Concentration	lb/hr	Wh	164.61	136.91	162.30
Dust Concentration	gr/acf	Wa	2.05E-02	1.70E-02	2.02E-02
Dust Concentration	gr/dscf	Ws	2.57E-02	2.11E-02	2.52E-02
Isokinetic Rate	%	%I	101.2	102.3	101.0
Sample Volume @ Stack Conditions	dacm	V_{stack}	1.3027	1.3124	1.3127
Sample Volume @ Standard Cond	dscm	Vms (metric)	1.1898	1.2028	1.2005
Particulate Concentration	mg/acm (wet)	$C_{pm(stack)}$	47.001	39.005	46.282
Particulate Concentration	mg/wscm		51.459	42.558	50.610
Particulate Concentration	mg/DSCM		58.748	48.220	57.561
Particulate Concentration	mg/Ncm		51.459	42.558	50.610
Particulate Emissions	lb/mmBtu	DI	0.061	0.050	0.059

Averages:	Flue Temp.:	122	Part. Emis:	lb/dscf	3.42E-06
	ACFM:	935,957		lb/hr	154.61
	DSCFM:	752,817		gr/acf	1.93E-02
	Percent O2:	8.57%		gr/dscf	2.40E-02
				lb/mmBtu	0.057

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October 1, 2010

Hand Delivered

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 2 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 2 Scrubbed Stack. This test was conducted on August 18, 2010 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.46 lbs/mmbtu for the Unit 2 Scrubbed Stack. The measured average emission rates were 0.096 lbs/mmbtu for the Unit 2 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

B.P. 9/27/10

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG PLANT
UNIT 2

August 18, 2010

Job # 10-373

Test Report Date: 09-07-10

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light, at the Petersburg Plant, Unit 2.

PARTICULATE EMISSIONS

Run #	Description	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	Soot	8-18-10	7.60E-06	620.68	0.116
2	Non-Soot	8-18-10	6.90E-06	562.90	0.104
3	Non-Soot	8-18-10	4.29E-06	349.78	0.066
AVG.			**6.26E-06**	**511.12**	**0.096**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis

IP&L
Petersburg
Unit 2
10-373

Run Number			1	2	3
			Soot	Non-Soot	Non-Soot
Date			8/18/2010	8/18/2010	8/18/2010
Location			Unit 2	Unit 2	Unit 2
Comment			RM5-Compliance	RM5-Compliance	RM5-Compliance
Start Time			10:08	12:10	13:50
End Time			11:20	13:17	14:58
Barometric Pressure	In. Hg.	Pb	29.33	29.33	29.33
Static Pressure	In. H2O	Pf	0.9	0.9	0.9
Volume of Condensate	mls.	Vlc	160	145	151
Volume Sampled	dcf	Vm	45.19	45.05	44.97
Meter Correction Factor		Y	1.03	1.03	1.03
Square Root of Delta P			0.73	0.723	0.726
Orifice Pressure	In. H2O		2.005	1.993	2.015
Meter Temperature	Degree F		98	102	103
Flue Temperature	Degree F		124	126	127
Percent CO2	%		11.6	11.5	11.4
Percent O2	%		7.5	7.4	7.7
Diameter of Nozzle	In.		0.255	0.255	0.255
Area of Flue	Sq. ft.		683.49	683.49	683.49
Sample Time	min.		60	60	60
Weight Gain	grams		0.1495	0.1343	0.0833
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.40	29.40	29.40
Corrected Sample Volume	dscf	Vms	43.39	42.95	42.80
Moisture of Flue Gas	%	Bws	14.81%	13.73%	14.26%
Molecular Weight	lb/lb-mole	Ms	28.36	28.47	28.40
Velocity of Flue Gas	fps	Vs	43.88	43.45	43.72
Volume of Flue Gas	ACFM	Vo	1,799,461	1,781,683	1,792,737
Volume of Flue Gas	DSCFM	Qsd	1,361,687	1,360,639	1,358,348
Dust Concentration	lb/dscf	Wd	7.60E-06	6.90E-06	4.29E-06
Dust Concentration	lb/hr	Wh	620.68	562.90	349.78
Dust Concentration	gr/acf	Wa	4.02E-02	3.69E-02	2.28E-02
Dust Concentration	gr/dscf	Ws	5.32E-02	4.83E-02	3.00E-02
Isokinetic Rate	%	%I	102.4	101.4	101.2
Particulate Emissions	lb/mmBtu	DI	0.116	0.104	0.066

Averages:	Flue Temp.:	125.6667	Part. Emis:	lb/dscf	6.26E-06
	ACFM:	1,791,294		lb/hr	511.12
	DSCFM:	1,360,225		gr/acf	3.33E-02
	Percent O2:	7.53%		gr/dscf	4.38E-02
				lb/mmBtu	0.096

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October 1, 2012

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Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 2 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 2 Scrubbed Stack. This test was conducted on August 22, 2012 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.46 lbs/mmbtu for the Unit 2 Scrubbed Stack. The measured average emission rates were 0.014 lbs/mmbtu for the Unit 2 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A Harter

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG STATION
UNIT 2

August 22, 2012

Job # 12-282

Test Report Date: 09-13-12

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light, Petersburg Station, Unit 2.

PARTICULATE EMISSIONS

Method 5

Run	Description	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	Method 5	08-22-12	1.30E-06	92.96	0.022
2	Method 5	08-22-12	6.15E-07	44.11	0.010
3	Method 5	08-22-12	4.70E-07	33.57	0.008
AVG.			**7.94E-07**	**56.88**	**0.014**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis

IP&L
Petersburg
Unit 2
12-282

Run Number			1	2	3
Date			8/22/2012	8/22/2012	8/22/2012
Location			Unit 2	Unit 2	Unit 2
Comment			Method 5	Method 5	Method 5
Start Time			8:50	10:17	11:44
End Time			9:58	11:30	12:49
Barometric Pressure	In. Hg.	Pb	29.86	29.86	29.86
Static Pressure	In. H2O	Pf	0.45	0.45	0.45
Volume of Condensate	mls.	Vlc	161	162	164
Volume Sampled	dcf	Vm	49.562	49.808	49.696
Meter Correction Factor		Y	0.982	0.982	0.982
Square Root of Delta P			0.625	0.626	0.623
Orifice Pressure	In. H2O		2.250	2.273	2.265
Meter Temperature	Degree F		94	96	97
Flue Temperature	Degree F		125	125	125
Percent CO2	%		10.8	10.8	10.8
Percent O2	%		8.9	8.9	8.9
Diameter of Nozzle	In.		0.281	0.281	0.281
Area of Flue	Sq. ft.		683.49	683.49	683.49
Sample Time	min.		60	60	60
Weight Gain	grams		0.0274	0.0130	0.0099
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.89	29.89	29.89
Corrected Sample Volume	dscf	Vms	46.55	46.61	46.43
Moisture of Flue Gas	%	Bws	14.02%	14.08%	14.28%
Calculated Saturated Moisture	%	Bwsat	13.23%	13.23%	13.23%
Moisture used for Calculations	%	Bwsu	13.23%	13.23%	13.23%
Molecular Weight	lb/lb-mole	Ms	28.49	28.49	28.49
Velocity of Flue Gas	fps	Vs	37.20	37.26	37.08
Volume of Flue Gas	ACFM	Vo	1,525,589	1,528,030	1,520,707
Volume of Flue Gas	DSCFM	Qsd	1,193,737	1,195,647	1,189,917
Dust Concentration	lb/dscf	Wd	1.30E-06	6.15E-07	4.70E-07
Dust Concentration	lb/hr	Wh	92.96	44.11	33.57
Dust Concentration	gr/acf	Wa	7.11E-03	3.37E-03	2.58E-03
Dust Concentration	gr/dscf	Ws	9.09E-03	4.30E-03	3.29E-03
Isokinetic Rate	%	%I	104.1	104.2	104.5
Particulate Emissions	lb/mmBtu	DI	0.022	0.010	0.008

Averages:	Flue Temp.:	125	Part. Emis:	lb/dscf	7.94E-07
	ACFM:	1,524,776		lb/hr	56.88
	DSCFM:	1,193,101		gr/acf	4.35E-03
	Percent O2:	8.90%		gr/dscf	5.56E-03
				lb/mmBtu	0.014

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November 14, 2014

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Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg - Unit 2 Scrubbed
Title V Particulate Matter Compliance Test

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance test performed on IPL's Petersburg Plant Unit 2 Scrubbed Stack. This test was conducted on October 10, 2014 respectively, utilizing Reference Method 5.

The results of this test show compliance with the Title V particulate matter emission limits of 0.46 lbs/mmbtu for the Unit 2 Scrubbed Stack. The measured average emission rates were 0.006 lbs/mmbtu for the Unit 2 Scrubbed Stack.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

Jeffrey A. Harter
Title IV Designated Representative

Enclosure

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG GENERATION STATION
UNIT 2
October 10, 2014

Job # 14-392.2

Test Report Date: 10-31-14

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Generation Station, Unit 2.

PARTICULATE EMISSIONS

Method 5

Run	Test Date	Description	lb/dscf	lbs/hr	lb/mmBtu
1	10-10-14	Non-Soot	3.62E-07	29.65	0.006
2	10-10-14	Soot-Blow	3.86E-07	31.72	0.007
3	10-10-14	Non-Soot	3.25E-07	26.70	0.006
AVG.			**3.58E-07**	**29.35**	**0.006**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis
Method 5

IP&L
Petersburg
Unit 2
14-392.2

Run Number			1	2	3
Date			10/10/2014	10/10/2014	10/10/2014
Location			Unit 2	Unit 2	Unit 2
Comment			Non-Soot	Soot-Blow	Non-Soot
Start Time			8:12	10:13	12:18
End Time			9:27	11:29	13:35
Barometric Pressure	In. Hg.	Pb	29.74	29.74	29.74
Static Pressure	In. H2O	Pf	-2.0	-2.0	-2.0
Condensate Collected	grams	Vlc	195	191	190
Volume Sampled	dcf	Vm	56.705	57.630	55.735
Meter Correction Factor		Y	0.993	0.993	0.993
Pitot Tube Correction Factor		Pc	0.835	0.835	0.835
Square Root of Delta P			0.719	0.719	0.718
Orifice Pressure	In. H2O		2.872	2.952	2.899
Meter Temperature	Degree F		89	97	93
Flue Temperature	Degree F		124	123	123
Percent CO2	%		10.0	10.0	10.0
Percent O2	%		9.0	8.8	8.9
Diameter of Nozzle	In.		0.290	0.290	0.290
Area of Flue	Sq. ft.		683.500	683.500	683.500
Sample Time	min.		60	60	60
Weight Gain	grams		0.0089	0.0095	0.0078
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.59	29.59	29.59
Corrected Sample Volume	dscf	Vms	54.21	54.31	52.90
Measured Moisture of Flue Gas	%	Bws	14.50%	14.22%	14.48%
Calculated Saturated Moisture	%	Bwsat	13.00%	12.65%	12.65%
Moisture used for Calculations	%	Bwsu	13.00%	12.65%	12.65%
Molecular Weight	lb/lb-mole	Ms	28.40	28.44	28.44
Velocity of Flue Gas	fps	Vs	42.78	42.72	42.66
Volume of Flue Gas	ACFM	Vo	1,754,433	1,751,850	1,749,306
Volume of Flue Gas	DSCFM	Qsd	1,364,860	1,370,703	1,368,713
Dust Concentration	lb/dscf	Wd	3.62E-07	3.86E-07	3.25E-07
Dust Concentration	lb/hr	Wh	29.65	31.72	26.70
Dust Concentration	gr/acf	Wa	1.97E-03	2.11E-03	1.78E-03
Dust Concentration	gr/dscf	Ws	2.53E-03	2.70E-03	2.28E-03
Isokinetic Rate	%	%I	100.4	100.2	98.0
Dust Concentration	mg/ACM @ 160 C		3.377	3.612	3.045
Sample Volume @ Stack Conditions	dacm	Vstack	1.7167	1.7170	1.6723
Sample Volume @ Standard Cond	dscm	Vms (metric)	1.5351	1.5380	1.4980
Particulate Concentration	mg/acm (wet)	Cpm(stack)	4.510	4.833	4.074
Particulate Concentration	mg/wscm		5.044	5.395	4.548
Particulate Concentration	mg/DSCM		5.798	6.177	5.207
Particulate Concentration	mg/Ncm		5.044	5.395	4.548
Particulate Emissions	lb/mmBtu	DI	0.006	0.007	0.006

Averages: Flue Temp.:	123	Part. Emis:	lb/dscf	3.58E-07
ACFM:	1,751,863		lb/hr	29.35
DSCFM:	1,368,092		gr/acf	1.95E-03
Percent O2:	8.90%		gr/dscf	2.50E-03
			lb/mmBtu	0.006

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November 14, 2014

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StateofIndiana
NOV 13 2014
DeptofEnvironmentalManagement
StateofIndiana

Hand Delivered

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg Unit 3
Title V Particulate Matter Compliance Tests

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance tests performed on IPL's Petersburg Plant Unit 3. This test was conducted on October 2, 2014 utilizing Reference Method 5B.

The results of this test show compliance with the Title V particulate matter emission limits of 0.1 lbs/mmbtu for Unit 3. The measured average emission rate was 0.021 lbs/mmbtu for Unit 3.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

Jeffrey A. Harter
Title IV Designated Representative

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG GENERATION STATION
UNIT 3
October 2, 2014

Job # 14-392

Test Report Date: 10-31-14

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Generation Station, Unit 3.

PARTICULATE EMISSIONS

Method 5B

Run	Test Date	Description	lb/dscf	lbs/hr	lb/mmBtu
1	10-02-14	Non-Soot	2.04E-06	168.92	0.029
2	10-02-14	Soot-Blow	1.07E-06	89.34	0.016
3	10-02-14	Non-Soot	1.18E-06	98.07	0.017
AVG.			**1.43E-06**	**118.77**	**0.021**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis
Method 5B

IP&L
Petersburg
Unit 3
14-392

Run Number			1	2	3
Date			10/2/2014	10/2/2014	10/2/2014
Location			Unit 3	Unit 3	Unit 3
Comment			Non-Soot	Soot-Blow	Non-Soot
Start Time			9:13	11:34	13:51
End Time			10:21	12:46	15:06
Barometric Pressure	In. Hg.	Pb	29.53	29.53	29.53
Static Pressure	In. H2O	Pf	-1.4	-1.1	-1.5
Condensate Collected	grams	Vlc	166	181	176
Volume Sampled	dcf	Vm	44.475	48.339	45.927
Meter Correction Factor		Y	0.974	0.974	0.974
Pitot Tube Correction Factor		Pc	0.840	0.840	0.840
Square Root of Delta P			1.380	1.400	1.395
Orifice Pressure	In. H2O		1.877	2.122	2.141
Meter Temperature	Degree F		90	93	98
Flue Temperature	Degree F		154	157	156
Percent CO2	%		12.8	12.6	12.7
Percent O2	%		6.7	6.9	6.8
Diameter of Nozzle	In.		0.185	0.189	0.189
Area of Flue	Sq. ft.		380.100	380.100	380.100
Sample Time	min.		60	60	60
Weight Gain	grams		0.0382	0.0216	0.0225
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.43	29.45	29.42
Corrected Sample Volume	dscf	Vms	41.24	44.60	42.00
Measured Moisture of Flue Gas	%	Bws	15.95%	16.06%	16.50%
Molecular Weight	lb/lb-mole	Ms	28.35	28.32	28.27
Velocity of Flue Gas	fps	Vs	85.02	86.48	86.21
Volume of Flue Gas	ACFM	Vo	1,938,865	1,972,189	1,966,054
Volume of Flue Gas	DSCFM	Qsd	1,378,228	1,394,352	1,383,626
Dust Concentration	lb/dscf	Wd	2.04E-06	1.07E-06	1.18E-06
Dust Concentration	lb/hr	Wh	168.92	89.34	98.07
Dust Concentration	gr/acf	Wa	1.02E-02	5.28E-03	5.82E-03
Dust Concentration	gr/dscf	Ws	1.43E-02	7.47E-03	8.27E-03
Isokinetic Rate	%	%I	101.5	104.0	98.7
Dust Concentration	mg/ACM @ 160 C		18.306	9.565	10.515
Sample Volume @ Stack Conditions	dacm	Vstack	1.3806	1.4995	1.4111
Sample Volume @ Standard Cond	dscm	Vms (metric)	1.1677	1.2630	1.1893
Particulate Concentration	mg/acm (wet)	Cpm(stack)	23.255	12.091	13.314
Particulate Concentration	mg/wscm		27.496	14.355	15.798
Particulate Concentration	mg/DSCM		32.715	17.102	18.919
Particulate Concentration	mg/Ncm		27.496	14.355	15.798
Particulate Emissions	lb/mmBtu	DI	0.029	0.016	0.017

Averages:	Flue Temp.:	156	Part. Emis:	lb/dscf	1.43E-06
	ACFM:	1,959,036		lb/hr	118.77
	DSCFM:	1,385,402		gr/acf	7.09E-03
	Percent O2:	6.80%		gr/dscf	1.00E-02
				lb/mmBtu	0.021

October 1, 2009

Hand Delivered

RECEIVED
SEP 30 2009
STATE OF INDIANA
DEPT. OF ENVIRONMENTAL MGMT.
OFFICE OF AIR QUALITY

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg Unit 4
Title V Particulate Matter Compliance Tests

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance tests performed on IPL's Petersburg Plant Unit 4. This test was conducted on August 26, 2009, utilizing Reference Method 5B.

The results of this test show compliance with the Title V particulate matter emission limits of 0.1 lbs/mmbtu for Unit 4. The measured average emission rate was 0.015 lbs/mmbtu for Unit 4.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter
Title IV Designated Representative

COMPLIANCE
PARTICULATE EMISSIONS
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG PLANT
UNIT 4
August 26, 2009

Job # 09-244

Test Report Date: 09-11-09

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light, at the Petersburg Plant, Unit 4.

PARTICULATE EMISSIONS

Run #	Description	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	Non-Soot	8-26-09	9.23E-07	80.84	0.015
2	Soot	8-26-09	1.04E-06	91.78	0.016
3	Non-Soot	8-26-09	8.26E-07	72.95	0.013
AVG.			**9.28E-07**	**81.85**	**0.015**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis
Method 5B

IP&L
Petersburg Station
Unit 4 Stack
09-244

Run Number			1	2	3
Date			8/26/2009	8/26/2009	8/26/2009
Location			Unit 4 Stack	Unit 4 Stack	Unit 4 Stack
Comment			Non-Soot	Soot	Non-Soot
Start Time			14:05	15:45	17:40
End Time			15:15	17:01	18:50
Barometric Pressure	In. Hg.	Pb	29.60	29.60	29.60
Static Pressure	In. H2O	Pf	-1.3	-1.3	-1.3
Volume of Condensate	mls.	Vlc	158.9	154.1	150.1
Volume Sampled	dcf	Vm	62.292	63.019	63.087
Meter Correction Factor		Y	0.980	0.980	0.980
Square Root of Delta P			0.988	0.998	0.995
Orifice Pressure	In. H2O		3.065	3.122	3.107
Meter Temperature	Degree F		107.2	108.5	109.4
Flue Temperature	Degree F		150.7	155.5	156.6
Percent CO2	%		11.7	11.8	11.7
Percent O2	%		8	7.8	8
Diameter of Nozzle	In.		0.250	0.250	0.250
Area of Flue	Sq. ft.		537.07	537.07	537.07
Sample Time	min.		60	60	60
Weight Gain	grams		0.0237	0.0269	0.0214
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.50	29.50	29.50
Corrected Sample Volume	dscf	Vms	56.65	57.19	57.15
Moisture of Flue Gas	%	Bws	11.67%	11.26%	11.01%
Molecular Weight	lb/lb-mole	Ms	28.77	28.83	28.85
Velocity of Flue Gas	fps	Vs	60.18	60.97	60.81
Volume of Flue Gas	ACFM	Vo	1,939,286	1,964,663	1,959,692
Volume of Flue Gas	DSCFM	Qsd	1,460,406	1,474,739	1,472,599
Dust Concentration	lb/dscf	Wd	9.23E-07	1.04E-06	8.26E-07
Dust Concentration	lb/hr	Wh	80.84	91.78	72.95
Dust Concentration	gr/acf	Wa	4.86E-03	5.45E-03	4.34E-03
Dust Concentration	gr/dscf	Ws	6.46E-03	7.26E-03	5.78E-03
Isokinetic Rate	%	%I	101.9	101.8	101.9
Particulate Emissions	lb/mmBtu	DI	0.015	0.016	0.013

Averages:	Flue Temp.:	154.26667	Part. Emis:	lb/dscf	9.28E-07
	ACFM:	1,954,547		lb/hr	81.85
	DSCFM:	1,469,248		gr/acf	4.89E-03
	Percent O2:	7.93%		gr/dscf	6.50E-03
				lb/mmBtu	0.015

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JAN 26 2012
STATE OF INDIANA
DEPT. OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

February 1, 2012

Hand Delivered

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg Unit 4
Title V Particulate Matter Compliance Tests

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance tests performed on IPL's Petersburg Plant Unit 4. This test was conducted on December 20, 2011 utilizing Reference Method 5B.

The results of this test show compliance with the Title V particulate matter emission limits of 0.1 lbs/mmbtu for Unit 4. The measured average emission rate was 0.010 lbs/mmbtu for Unit 4.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter

Jeffrey A. Harter
Title IV Designated Representative

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG GENERATION STATION
UNIT 4
December 20, 2011

Job # 11-431

Test Report Date: 1-19-12

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Generation Station on Unit 4.

PARTICULATE EMISSIONS
Method 5B

Run #	Date	Description	lb/dscf	lbs/hr	lb/mmBtu
1	12-20-11	Unit 4	7.33E-07	49.22	0.010
2	12-20-11	Unit 4	6.55E-07	44.70	0.009
3	12-20-11	Unit 4	8.22E-07	55.87	0.012
AVG.			**7.37E-07**	**49.93**	**0.010**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis

IP&L
Petersburg
Unit 4
11-431

Run Number			1	2	3
Date			12/20/2011	12/20/2011	12/20/2011
Location			Unit 4	Unit 4	Unit 4
Comment			Method 5B	Method 5B	Method 5B
Start Time			9:32	12:26	14:05
End Time			11:29	13:35	15:13
Barometric Pressure	In. Hg.	Pb	29.25	29.25	29.25
Static Pressure	In. H2O	Pf	-0.73	-0.73	-0.72
Volume of Condensate	mls.	Vlc	173	168	162
Volume Sampled	dcf	Vm	42.605	43.76	43.537
Meter Correction Factor		Y	0.988	0.988	0.988
Square Root of Delta P			0.774	0.786	0.783
Orifice Pressure	In. H2O		1.388	1.47	1.452
Meter Temperature	Degree F		69	77	76
Flue Temperature	Degree F		129	129	129
Percent CO2	%		13.2	13.2	13
Percent O2	%		6.3	6.3	6.5
Diameter of Nozzle	In.		0.240	0.240	0.240
Area of Flue	Sq. ft.		537.1	537.1	537.1
Sample Time	min.		60	60	60
Weight Gain	grams		0.0137	0.0124	0.0155
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.20	29.20	29.20
Corrected Sample Volume	dscf	Vms	41.22	41.71	41.57
Moisture of Flue Gas	%	Bws	15.10%	15.10%	15.10%
Molecular Weight	lb/lb-mole	Ms	28.50	28.50	28.48
Velocity of Flue Gas	fps	Vs	46.77	47.49	47.33
Volume of Flue Gas	ACFM	Vo	1,507,078	1,530,443	1,525,128
Volume of Flue Gas	DSCFM	Qsd	1,119,254	1,136,607	1,132,688
Dust Concentration	lb/dscf	Wd	7.33E-07	6.55E-07	8.22E-07
Dust Concentration	lb/hr	Wh	49.22	44.70	55.87
Dust Concentration	gr/acf	Wa	3.81E-03	3.41E-03	4.27E-03
Dust Concentration	gr/dscf	Ws	5.13E-03	4.59E-03	5.75E-03
Isokinetic Rate	%	%I	106.7	105.6	105.1
Particulate Emissions	lb/mmBtu	DI	0.010	0.009	0.012

Averages:	Flue Temp.:	129	Part. Emis:	lb/dscf	7.37E-07
	ACFM:	1,520,883		lb/hr	49.93
	DSCFM:	1,129,516		gr/acf	3.83E-03
	Percent O2:	6.37%		gr/dscf	5.16E-03
				lb/mmBtu	0.010

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State of Indiana
DEC 17 2013
Dept of Environmental Management
Office of Air Quality

December 13, 2013

Hand Delivered

Mr. David Cline
Indiana Department of Environmental Management
Office of Air Quality
Air Compliance Branch
100 N. Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: IPL - Petersburg Unit 4
Title V Particulate Matter Compliance Tests

Dear Mr. Cline:

Enclosed please find the results of the particulate matter compliance tests performed on IPL's Petersburg Plant Unit 4. This test was conducted on November 5, 2013 utilizing Reference Method 5B.

The results of this test show compliance with the Title V particulate matter emission limits of 0.1 lbs/mmbtu for Unit 4. The measured average emission rate was 0.007 lbs/mmbtu for Unit 4.

If you have any questions regarding the report, please contact me at 812-354-7222.

Sincerely,

Jeffrey A. Harter
Title IV Designated Representative

INDIANAPOLIS POWER & LIGHT COMPANY
PETERSBURG GENERATING STATION | 6925 N. State RD. 57, P.O. Box 436 | Petersburg, Indiana 47567-0436

PARTICULATE COMPLIANCE
TEST REPORT
FOR
INDIANAPOLIS POWER & LIGHT
PETERSBURG GENERATION STATION
UNIT 4
November 5, 2013

Job # 13-402

Test Report Date: 11-25-13

SUMMARY OF TEST RESULTS

The following presents the results of the emissions tests performed for Indianapolis Power & Light at the Petersburg Generation Station, Unit 4.

PARTICULATE EMISSIONS
Method 5B

Run #	Test Date	lb/dscf	lbs/hr	lb/mmBtu
1	11-05-13	5.80E-07	46.60	0.008
2	11-05-13	3.99E-07	32.28	0.006
3	11-05-13	4.96E-07	40.20	0.007
AVG.		**4.92E-07**	**39.69**	**0.007**

The complete results can be found on the computer printouts following.

GRACE CONSULTING, INC.

Particulate Analysis

IP&L
Petersburg
Unit 4
13-402

Run Number			1	2	3
Date			11/5/2013	11/5/2013	11/5/2013
Location			Unit 4	Unit 4	Unit 4
Comment			Method 5B	Method 5B	Method 5B
Start Time			10:26	12:25	14:38
End Time			11:41	13:42	15:53
Barometric Pressure	In. Hg.	Pb	29.86	29.86	29.86
Static Pressure	In. H2O	Pf	-0.4	-0.4	-0.4
Volume of Condensate	mls.	Vlc	155	157	158
Volume Sampled	dcf	Vm	39.383	40.087	39.984
Meter Correction Factor		Y	1.000	1.000	1.000
Square Root of Delta P			0.909	0.92	0.916
Orifice Pressure	In. H2O		1.464	1.515	1.512
Meter Temperature	Degree F		77	80	81
Flue Temperature	Degree F		128	129	128
Percent CO2	%		13.1	13.1	13
Percent O2	%		6.4	6.4	6.5
Diameter of Nozzle	In.		0.218	0.218	0.218
Area of Flue	Sq. ft.		537.1	537.1	537.1
Sample Time	min.		60	60	60
Weight Gain	grams		0.0102	0.0071	0.0088
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	29.83	29.83	29.83
Corrected Sample Volume	dscf	Vms	38.78	39.26	39.09
Moisture of Flue Gas	%	Bws	15.86%	15.86%	16.01%
Calculated Saturated Moisture	%	Bwsat	14.38%	14.77%	14.38%
Moisture used for Calculations	%	Bwsu	14.38%	14.77%	14.38%
Molecular Weight	lb/lb-mole	Ms	28.58	28.53	28.57
Velocity of Flue Gas	fps	Vs	54.21	54.96	54.64
Volume of Flue Gas	ACFM	Vo	1,747,115	1,771,263	1,760,886
Volume of Flue Gas	DSCFM	Qsd	1,339,259	1,349,255	1,349,815
Dust Concentration	lb/dscf	Wd	5.80E-07	3.99E-07	4.96E-07
Dust Concentration	lb/hr	Wh	46.60	32.28	40.20
Dust Concentration	gr/acf	Wa	3.11E-03	2.13E-03	2.66E-03
Dust Concentration	gr/dscf	Ws	4.06E-03	2.79E-03	3.47E-03
Isokinetic Rate	%	%I	101.8	101.8	102.0
Particulate Emissions	lb/mmBtu	DI	0.008	0.006	0.007

Averages:	Flue Temp.:	128	Part. Emis:	lb/dscf	4.92E-07
	ACFM:	1,759,755		lb/hr	39.69
	DSCFM:	1,346,109		gr/acf	2.63E-03
	Percent O2:	6.43%		gr/dscf	3.44E-03
				lb/mmBtu	0.007