Aux Boilers CO/L CGA

Indiantown CoGen

Test Information

Test Date:	**3/2/2012**
Facility:	Indiantown CoGen
Unit:	Aux Boilers

Analyzer Information

Range:	Low
Instrument Span:	200 ppm
Manufacturer:	Siemens
Model:	UltramatOxymat6
Serial Number:	7MB20231EA20-0BD1

Run Number	Time	Reference Gas	CEMS Response		
Low Gas					
1	8:58 AM	50.700	51.030		Allowable Reference Values:
2	9:08 AM	50.700	50.630		40-60 ppm (20-30% of span)
3	9:18 AM	50.700	50.670		
	Mean (ppm)	50.700	50.777		
	Mean Difference (ppm)	0.077	*Limit: 5*	*Passed*	
	Linearity Error	0%	*Limit: 15%*	*Passed*	
Mid Gas					
1	9:03 AM	108.000	107.910		Allowable Reference Values:
2	9:13 AM	108.000	108.070		100-120 ppm (50-60% of span)
3	9:23 AM	108.000	107.940		
	Mean (ppm)	108.000	107.973		
	Mean Difference (ppm)	0.027	*Limit: 5*	*Passed*	
	Linearity Error	0%	*Limit: 15%*	*Passed*	

Linearity Error (LE) Determination: $LE = (|R-A| / R) * 100$

R = Reference gas value

A = Mean of actual CEMS responses

Aux Boilers NOx CGA

Indiantown CoGen

Test Information

Test Date:	**3/2/2012**
Facility:	Indiantown CoGen
Unit:	Aux Boilers

Analyzer Information

Range:	Single
Instrument Span:	300 ppm
Manufacturer:	Thermo Environmental
Model:	42i
Serial Number:	0617417188

Run Number	Time	Reference Gas	CEMS Response		
Low Gas					
1	8:58 AM	72.900	74.390		Allowable Reference Values:
2	9:08 AM	72.900	74.540		60-90 ppm (20-30% of span)
3	9:18 AM	72.900	74.610		
	Mean (ppm)	72.900	74.513		
	Mean Difference (ppm)	1.613	*Limit: 5*	*Passed*	
	Linearity Error	2%	*Limit: 15%*	*Passed*	
Mid Gas					
1	9:03 AM	165.000	168.790		Allowable Reference Values:
2	9:13 AM	165.000	168.800		150-180 ppm (50-60% of span)
3	9:23 AM	165.000	168.460		
	Mean (ppm)	165.000	168.683		
	Mean Difference (ppm)	3.683	*Limit: 5*	*Passed*	
	Linearity Error	2%	*Limit: 15%*	*Passed*	

Linearity Error (LE) Determination: $LE = (|R-A| / R) * 100$

R = Reference gas value

A = Mean of actual CEMS responses

Aux Boilers CO/H CGA

Indiantown CoGen

Test Information

Test Date:	**3/2/2012**
Facility:	Indiantown CoGen
Unit:	Aux Boilers

Analyzer Information

Range:	High
Instrument Span:	1000 ppm
Manufacturer:	Siemens
Model:	UltramatOxymat6
Serial Number:	7MB20231EA20-0BD1

Run Number	Time	Reference Gas	CEMS Response		
Low Gas					
1	10:23 AM	251.000	251.200		Allowable Reference Values:
2	10:33 AM	251.000	251.900		200-300 ppm (20-30% of span)
3	10:43 AM	251.000	251.900		
	Mean (ppm)	251.000	251.667		
	Mean Difference (ppm)	0.667	*Limit: 5*	*Passed*	
	Linearity Error	0%	*Limit: 15%*	*Passed*	
Mid Gas					
1	10:28 AM	549.000	551.300		Allowable Reference Values:
2	10:38 AM	549.000	551.300		500-600 ppm (50-60% of span)
3	10:48 AM	549.000	551.900		
	Mean (ppm)	549.000	551.500		
	Mean Difference (ppm)	2.500	*Limit: 5*	*Passed*	
	Linearity Error	0%	*Limit: 15%*	*Passed*	

Linearity Error (LE) Determination: $LE = (|R-A| / R) * 100$

R = Reference gas value

A = Mean of actual CEMS responses

Aux Boilers O2 CGA

Indiantown CoGen

Test Information

Test Date:	**3/2/2012**
Facility:	Indiantown CoGen
Unit:	Aux Boilers

Analyzer Information

Range:	Single
Instrument Span:	20 %O2
Manufacturer:	California Analytical
Model:	UltramatOxymat6
Serial Number:	7MB20231EA20-0BD1

Run Number	Time	Reference Gas	CEMS Response		
Low Gas					
1	10:23 AM	5.040	5.000		Allowable Reference Values:
2	10:33 AM	5.040	5.000		4-6 %O2
3	10:43 AM	5.040	5.000		
	Mean (%O2)	5.040	5.000		
	Mean Difference (%O2)	0.040	*Limit: N/A*		
	Linearity Error	1%	*Limit: 15%*	*Passed*	
Mid Gas					
1	10:28 AM	10.020	10.050		Allowable Reference Values:
2	10:38 AM	10.020	10.040		8-12 %O2
3	10:48 AM	10.020	10.040		
	Mean (%O2)	10.020	10.043		
	Mean Difference (%O2)	0.023	*Limit: N/A*		
	Linearity Error	0%	*Limit: 15%*	*Passed*	

Linearity Error (LE) Determination: $LE = (|R-A| / R) * 100$

R = Reference gas value

A = Mean of actual CEMS responses