AP42 Section:	12.2
Title:	Emission Test Report Summaries from contractor

Note: This material is related to a section in *AP42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources.* AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the file number, the AP42 chapter and then the section. The file name "rel01_c01s02.pdf" would mean the file relates to AP42 chapter 1 section 2. The document may be out of date and related to a previous version of the section. The document has been saved for archival and historical purposes. The primary source should always be checked. If current related information is available, it will be posted on the AP42 webpage with the current version of the section.

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke40.xls
Ref. No.: 40
Date: 13-Aug-97
Reviewer: A Saltis

Facility: Bethlehem Steel Corporation
Location: Bethlehem, PA
Source: Pushing with scrubber
Test date: 27-Aug-87

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1
	Stack temperature	Deg F	118
	Pressure	in. Hg	29.68
	Moisture	%	2.8
	Oxygen	%	21.0
	Gas volume sampled	dscf	16.39
	Vol. flow, actual	acfm	171,689
	Vol. flow, standard*	dscfm	151,223
	Isokinetic variation	%	107.3
	Process rate (specify units)	tons/hr	78.3
Indicate basis for process rate: average tons of coke pushed			
	Pollutant mass:		
	Filterable PM	grams	4.6100E-02
	Condensable inorg. PM	grams	
	Condensable org. PM	grams	
	Total condensable PM	grams	
	Pollutant concentrations:		
	Filterable PM	gr/dscf	4.3395E-02
	Condensable inorg. PM	gr/dscf	0
	Condensable org. PM	gr/dscf	0
	Total condensable PM	gr/dscf	0
	CO2	% vol.	0.0000E+00
	CO	ppmdv	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	4.5279E+00
	Condensable inorg. PM	lb/hr	0
	Condensable org. PM	lb/hr	0
	Total condensable PM	lb/hr	0
	CO2	lb/hr	0.0000E+00
	CO	lb/hr	0
		lb/hr	
	Emission factors (ENGLISH UNITS):		
	Filterable PM	lb/unit	5.7803E-02
	Condensable inorg. PM	lb/unit	0
	Condensable org. PM	lb/unit	0
	Total condensable PM	lb/unit	0
	CO2	lb/unit	0.0000E+00
	CO	lb/unit	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke41.xls
Ref. No.: 41
Date: 13-Aug-97
Reviewer: A Saltis

Facility: Bethlehem Steel Corporation
Location: Bethlehem, PA
Source: Battery A pushing with scrubber system
Test date: 15-Dec-88

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1
	Stack temperature	Deg F	90
	Pressure	in. Hg	29.63
	Moisture	%	2.6
	Oxygen	%	21.0
	Gas volume sampled	dscf	12.22
	Vol. flow, actual	acfm	136,161
	Vol. flow, standard*	dscfm	126,082
	Isokinetic variation	%	100.5
	Process rate (specify units)	tons/hr	78.3
Indicate basis for process rate: average tons of coke pushed			
	Pollutant mass:		
	Filterable PM	grams	1.3700E-02
	Condensable inorg. PM	grams	
	Condensable org. PM	grams	
	Total condensable PM	grams	
	Pollutant concentrations:		
	Filterable PM	gr/dscf	1.7293E-02
	Condensable inorg. PM	gr/dscf	0
	Condensable org. PM	gr/dscf	0
	Total condensable PM	gr/dscf	0
	CO2	% vol.	0.0000E+00
	CO	ppmdv	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	9.9985E-01
	Condensable inorg. PM	lb/hr	0
	Condensable org. PM	lb/hr	0
	Total condensable PM	lb/hr	0
	CO2	lb/hr	0.0000E+00
	CO	lb/hr	0
		lb/hr	
	Emission factors (ENGLISH UNITS):		
	Filterable PM	lb/unit	1.2764E-02
	Condensable inorg. PM	lb/unit	0
	Condensable org. PM	lb/unit	0
	Total condensable PM	lb/unit	0
	CO2	lb/unit	0.0000E+00
	CO	lb/unit	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke42.xls
Ref. No.: 42
Date: 13-Aug-97
Reviewer: A Saltis

Facility: Bethlehem Steel Corporation
Location: Bethlehem, PA
Source: Battery A pushing with scrubber system
Test date: 30-Aug-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1
	Stack temperature	Deg F	137
	Pressure	in. Hg	29.42
	Moisture	%	3.0
	Oxygen	%	21.0
	Gas volume sampled	dscf	17.30
	Vol. flow, actual	acfm	138,937
	Vol. flow, standard*	dscfm	117,201
	Isokinetic variation	%	111.7
	Process rate (specify units)	tons/hr	75.1
Indicate basis for process rate: average tons of coke pushed			
	Pollutant mass:		
	Filterable PM	grams	1.2000E-02
	Condensable inorg. PM	grams	
	Condensable org. PM	grams	
	Total condensable PM	grams	
	Pollutant concentrations:		
	Filterable PM	gr/dscf	1.0704E-02
	Condensable inorg. PM	gr/dscf	0
	Condensable org. PM	gr/dscf	0
	Total condensable PM	gr/dscf	0
	CO2	% vol.	0.0000E+00
	CO	ppmdv	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	6.5339E-01
	Condensable inorg. PM	lb/hr	0
	Condensable org. PM	lb/hr	0
	Total condensable PM	lb/hr	0
	CO2	lb/hr	0.0000E+00
	CO	lb/hr	0
		lb/hr	
	Emission factors (ENGLISH UNITS):		
	Filterable PM	lb/unit	8.7003E-03
	Condensable inorg. PM	lb/unit	0
	Condensable org. PM	lb/unit	0
	Total condensable PM	lb/unit	0
	CO2	lb/unit	0.0000E+00
	CO	lb/unit	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke43.xls
Ref. No.: 43
Date: 13-Aug-97
Reviewer: A Saltis

Facility: Bethlehem Steel Corporation
Location: Bethlehem, PA
Source: Battery A pushing with scrubber system
Test date: 13-Sep-91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1
	Stack temperature	Deg F	119.1
	Pressure	in. Hg	29.48
	Moisture	%	1.7
	Oxygen	%	21.0
	Gas volume sampled	dscf	17.99
	Vol. flow, actual	acfm	146,648
	Vol. flow, standard*	dscfm	129,502
	Isokinetic variation	%	109.5
	Process rate (specify units)	tons/hr	75.1
Indicate basis for process rate: average tons of coke pushed			
	Pollutant mass:		
	Filterable PM	grams	1.7620E-02
	Condensable inorg. PM	grams	
	Condensable org. PM	grams	
	Total condensable PM	grams	
	Pollutant concentrations:		
	Filterable PM	gr/dscf	1.5116E-02
	Condensable inorg. PM	gr/dscf	0
	Condensable org. PM	gr/dscf	0
	Total condensable PM	gr/dscf	0
	CO2	% vol.	0.0000E+00
	CO	ppmdv	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	1.0990E+00
	Condensable inorg. PM	lb/hr	0
	Condensable org. PM	lb/hr	0
	Total condensable PM	lb/hr	0
	CO2	lb/hr	0.0000E+00
	CO	lb/hr	0
		lb/hr	
	Emission factors (ENGLISH UNITS):		
	Filterable PM	lb/unit	1.4634E-02
	Condensable inorg. PM	lb/unit	0
	Condensable org. PM	lb/unit	0
	Total condensable PM	lb/unit	0
	CO2	lb/unit	0.0000E+00
	CO	lb/unit	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke44.xls
Ref. No.: 44
Date: 13-Aug-97
Reviewer: A Saltis

Facility: Bethlehem Steel Corporation
Location: Bethlehem, PA
Source: Battery A pushing with scrubber system
Test date: 24-Nov-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1
	Stack temperature	Deg F	93.9
	Pressure	in. Hg	29.48
	Moisture	%	0.6
	Oxygen	%	20.9
	Gas volume sampled	dscf	19.19
	Vol. flow, actual	acfm	143,812
	Vol. flow, standard*	dscfm	134,261
	Isokinetic variation	%	99.5
	Process rate (specify units)	tons/hr	77.1
Indicate basis for process rate: average tons of coke pushed			
	Pollutant mass:		
	Filterable PM	grams	1.1572E-02
	Condensable inorg. PM	grams	
	Condensable org. PM	grams	
	Total condensable PM	grams	
	Pollutant concentrations:		
	Filterable PM	gr/dscf	9.3071E-03
	Condensable inorg. PM	gr/dscf	0
	Condensable org. PM	gr/dscf	0
	Total condensable PM	gr/dscf	0
	CO2	% vol.	0.0000E+00
	CO	ppmdv	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	7.8723E-01
	Condensable inorg. PM	lb/hr	0
	Condensable org. PM	lb/hr	0
	Total condensable PM	lb/hr	0
	CO2	lb/hr	0.0000E+00
	CO	lb/hr	0
		lb/hr	
	Emission factors (ENGLISH UNITS):		
	Filterable PM	lb/unit	1.0215E-02
	Condensable inorg. PM	lb/unit	0
	Condensable org. PM	lb/unit	0
	Total condensable PM	lb/unit	0
	CO2	lb/unit	0.0000E+00
	CO	lb/unit	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE45.XLS
Ref. No.: 45
Date: 12-Nov-97
Reviewer: sjs

Facility: ROUGE STEEL COMPANY
Location: MI
Source: "C" COKE OVEN COMBUSTION STACK W/ES
Test date: 01-Jul-86

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	343	347	351	347.0
BATTERY C	Pressure	in. Hg	29.25	29.23	29.18	29.2
combust. sta	Moisture	%	10.1	10.4	10.7	10.4
w/ESP	Oxygen	%	4.6	4.8	4.0	4.5
BFG	Gas volume sampled	dscf	43.71	39.47	41.85	41.68
	Vol. flow, actual	acfm	80,600	73,800	78,500	77,633
	Vol. flow, standard*	dscfm	46,500	42,200	44,400	44,367
	Isokinetic variation	%	98.2	97.3	97.7	97.7
	Process rate (specify units)	tph	55.58	89.49	80.23	75.10
Indicate basis for process rate: COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.035	0.0374	0.0161	2.95E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.012356427	0.014620034	0.00593618	1.10E-02
	CO2	% vol.	18.2	18.4	19.0	1.85E+01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.92E+00	5.29E+00	2.26E+00	4.16E+00
	CO2	lb/hr	5.80E+04	5.32E+04	5.78E+04	5.63E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	8.86E-02	5.91E-02	2.82E-02	5.86E-02
	CO2	lb/ton	1.04E+03	5.94E+02	7.20E+02	7.86E+02

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EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE46.XLS
Ref. No.: 46
Date: 13-Nov-97
Reviewer: sjs

Facility: ROUGE STEEL COMPANY
Location: MI
Source: "C" COKE OVEN PUSHING SHED BAGHOUSE
Test date: 7/8-10/86

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	144	139	150	144.3
BATTERY C	Pressure	in. Hg	29.43	29.43	29.34	29.4
PUSHING W/FF	Moisture	%	2.8	2.1	2.0	2.3
BFG	Oxygen	%	0.0	0.0	0.0	0.0
	Gas volume sampled	dscf	23.21	29.08	26.40	26.23
	Vol. flow, actual	acfm	165,000	199,000	182,000	182,000
	Vol. flow, standard*	dscfm	138,000	169,000	151,000	152,667
	Isokinetic variation	%	97.5	98.1	99.7	98.4
	Process rate (specify units)	tph	520.07	523.73	517.05	520.28
Indicate basis for process rate (feed or production): COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.0249	0.0248	0.0203	2.33E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.016553511	0.013160367	0.01186339	1.39E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.96E+01	1.91E+01	1.54E+01	1.80E+01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	3.76E-02	3.64E-02	2.97E-02	3.46E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE47.XLS
Ref. No.: 47
Date: 13-Nov-97
Reviewer: sjs

Facility: ROUGE STEEL COMPANY
Location: MI
Source: "C" COKE OVEN PUSHING SHED BAGHOUSE
Test date: 3/25-27/87.

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	113	110	108	110.3
BATTERY C	Pressure	in. Hg	29.2	29.1	29.3	29.2
PUSHING W/FF	Moisture	%	2.8	3.5	1.8	2.7
BFG	Oxygen	%	0.0	0.0	0.0	0.0
	Gas volume sampled	dscf	35.05	36.27	36.09	35.80
	Vol. flow, actual	acfm	226,000	229,000	227,000	227,333
	Vol. flow, standard*	dscfm	197,000	200,000	203,000	200,000
	Isokinetic variation	%	104.0	106.0	104.0	104.7
	Process rate (specify units)	tph	523.73	509.91	525.92	519.85
Indicate basis for process rate (feed or production): COAL CHARGED						
	Pollutant mass:		Run 1 is void--baghouse problem			
	Filterable PM	grams	0.0241	0.0112	0.0114	1.56E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.010610409	0.00476484	0.00487452	6.75E-03
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr		8.17E+00	8.48E+00	8.32E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton		1.60E-02	1.61E-02	1.61E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE48.XLS
Ref. No.: 48
Date: 13-Nov-97
Reviewer: sjs

Facility: ROUGE STEEL COMPANY
Location: MI
Source: NO.1 PUSHER W/VENTURI SCRUB. "A"&"A
Test date: 8/20-22/85

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	144	146	146	145.3
BATT. A&AX	Pressure	in. Hg	29.55	29.59	29.6	29.6
PUSHING WITH	Moisture	%	8.2	9.4	8.7	8.8
VENTURI SCRU	Oxygen	%	0.0	0.0	0.0	0.0
EXHAUST HOOD	Gas volume sampled	dscf	16.10	16.30	15.90	16.10
	Vol. flow, actual	acfm	108,000	105,000	103,000	105,333
	Vol. flow, standard*	dscfm	85,200	82,100	80,900	82,733
	Isokinetic variation	%	109.0	113.0	113.0	111.7
	Process rate (specify units)	tph	765.4615385	766.6153846	771.692308	767.923077
Indicate basis for process rate (feed or production): COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.0198	0.0241	0.0147	1.95E-02
	Condensable inorg. PM	grams	0.012	0.0178	0.013	1.43E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.018976025	0.022813681	0.01426547	1.87E-02
	Condensable inorg. PM	gr/dscf	0.011500621	0.016849939	0.01261572	1.37E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.39E+01	1.61E+01	9.89E+00	1.33E+01
	Condensable inorg. PM	lb/hr	8.40E+00	1.19E+01	8.75E+00	9.67E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.81E-02	2.09E-02	1.28E-02	1.73E-02
	Condensable inorg. PM	lb/ton	1.10E-02	1.55E-02	1.13E-02	1.26E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE49.XLS
Ref. No.: 49
Date: 13-Nov-97
Reviewer: sjs

Facility: JEWELL COAL AND COKE COMPANY
Location: VANSANT, VA
Source: #3-C COKE BATTERY STACK W/ THERMAL
Test date: 19-Mar-91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	1693	1566	1676	1645.0
#3-C BATTERY	Pressure	in. Hg				#DIV/0!
STACK W/	Moisture	%	13.4	11.1	14.9	13.1
THERMAL OXID	Oxygen	%	10.5	10.5	10.5	10.5
NON-RECOVERY	Gas volume sampled	dscf	33.80	30.20	39.90	34.63
PLANT	Vol. flow, actual	acfm	87,671	65,311	102,921	85,301
(comb. stack	Vol. flow, standard*	dscfm	18,005	14,627	20,952	17,861
	Isokinetic variation	%	96.0	106.0	97.0	99.7
	Process rate (specify units)	tph	7.5	7.5	7.5	7.5
Indicate basis for process rate (feed or production): COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.0454	0.0302	0.0675	4.77E-02
	Condensable inorg. PM	grams	0	0	0	0.00E+00
	Condensable org. PM	grams				#DIV/0!
	Total condensable PM	grams	0	0	0	0
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.020725503	0.01543	0.02610338	2.08E-02
	SO2	ppmdv	427.0	389.0	401.0	4.06E+02
	CO2	% vol.	6.5	7.0	7.0	6.83E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.20E+00	1.93E+00	4.69E+00	3.27E+00
	SO2	lb/hr	7.66E+01	5.67E+01	8.37E+01	7.24E+01
	CO2	lb/hr	8.02E+03	7.02E+03	1.00E+04	8.36E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	4.26E-01	2.58E-01	6.25E-01	4.36E-01
	SO2	lb/unit	1.02E+01	7.56E+00	1.12E+01	9.65E+00
	CO2	lb/unit	1.07E+03	9.35E+02	1.34E+03	1.11E+03

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA028
Ref. No.: 50
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer Carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #1 NORMAL OPERATION
Test date: 26-Sep-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 7	Run 8	Run 9	AVERAGE
	Stack temperature	Deg F	1808	1814	1826	1816.0
	Pressure	in. Hg	29.29	29.28	29.28	29.3
	Moisture	%	13.8	14.4	15.0	14.4
	Oxygen	%	9.4	8.8	8.8	9.0
	Gas volume sampled	dscf	45.24	45.60	46.90	45.91
	Vol. flow, actual	acfm	343,850	344,413	363,210	350,491
	Vol. flow, standard*	dscfm	67,550	66,989	69,782	68,107
	Isokinetic variation	%	102.0	104.5	102.4	103.0
	Process rate (specify units)	tons/hr	34.1	35.2	34.5	34.6
Indicate basis for process rate (feed or production):			kiln feed tons of green coke/hr			
	Pollutant mass:					AVERAGE
	Filterable PM	grams	0.1513	0.1005	0.0999	0.11723
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.05161	0.03401	0.03287	0.03949
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	29.8806	19.5279	19.6583	23.02227
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.8763	0.5548	0.5698	0.66695
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA028
Ref. No.: 50
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer Carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #1 MAXIMUM OPERATI
Test date: 27-Sep-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 7	Run 8	Run 9	AVERAGE
	Stack temperature	Deg F	1843	1879	1832	1851.3
	Pressure	in. Hg	29.67	29.67	29.67	29.7
	Moisture	%	14.4	14.5	14.5	14.5
	Oxygen	%	9.2	9.8	9.3	9.4
	Gas volume sampled	dscf	40.88	39.20	37.74	39.28
	Vol. flow, actual	acfm	524,543	508,353	484,176	505,691
	Vol. flow, standard*	dscfm	102,082	97,295	94,568	97,982
	Isokinetic variation	%	109.6	110.2	109.3	109.7
	Process rate (specify units)	tons/hr	52.3	50.2	48.9	50.46666667
Indicate basis for process rate (feed or production):		kiln feed tons of green coke/hr				
	Pollutant mass:					AVERAGE
	Filterable PM	grams	0.0404	0.032	0.0789	0.05043
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.01525	0.01259	0.03226	0.02003
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	13.3423	10.5034	26.1473	16.66433
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.2551	0.2092	0.5347	0.33302
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA028
Ref. No.: 50
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer Carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #2 NORMAL OPERATION
Test date: 24-Sep-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	1826	1841	1838	1835.0
	Pressure	in. Hg	29.27	29.27	29.28	29.3
	Moisture	%	14.6	15.7	15.4	15.2
	Oxygen	%	9.5	8.6	8.4	8.8
	Gas volume sampled	dscf	44.88	45.54	45.28	45.23
	Vol. flow, actual	acfm	340,150	347,487	347,130	344,922
	Vol. flow, standard*	dscfm	65,637	65,757	66,032	65,809
	Isokinetic variation	%	104.2	106.3	105.3	105.3
	Process rate (specify units)	tons/hr	35.8	36.7	36.1	36.2
Indicate basis for process rate (feed or production):			kiln feed tons of green coke/hr			
	Pollutant mass:					AVERAGE
	Filterable PM	grams	0.0423	0.0599	0.0324	0.04487
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.01454	0.02030	0.01104	0.01529
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	8.1815	11.4392	6.2495	8.62341
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.2285	0.3117	0.1731	0.23778
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA028
Ref. No.: 50
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer Carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #2 MAXIMUM OPERATION
Test date: 25-Sep-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 4	Run 5	Run 6	AVERAGE
	Stack temperature	Deg F	1892	1913	1915	1906.7
	Pressure	in. Hg	29.28	29.28	29.27	29.3
	Moisture	%	14.2	14.4	14.0	14.2
	Oxygen	%	8.6	8.4	8.3	8.4
	Gas volume sampled	dscf	34.72	35.18	36.79	35.56
	Vol. flow, actual	acfm	464,522	469,073	490,558	474,718
	Vol. flow, standard*	dscfm	87,559	87,430	91,753	88,914
	Isokinetic variation	%	108.6	110.1	109.7	109.5
	Process rate (specify units)	tons/hr	49	49.3	47.9	48.73333333
Indicate basis for process rate (feed or production):			kiln feed tons of green coke/hr			
	Pollutant mass:					AVERAGE
	Filterable PM	grams	0.0715	0.0813	0.0579	0.07023
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.03177	0.03566	0.02429	0.03057
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	23.8456	26.7253	19.0996	23.22349
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.4866	0.5421	0.3987	0.47583
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA029
Ref. No.: 51
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer Carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #1
Test date: 12-Dec-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	1953	1954	1950	1952.3
	Pressure	in. Hg	29.38	29.83	29.83	29.7
	Moisture	%	17.2	16.5	17.0	16.9
	Oxygen	%	6.7	7.1	6.8	6.9
	Gas volume sampled	dscf	38.22	40.40	39.16	39.26
	Vol. flow, actual	acfm	296,212	319,870	310,079	308,720
	Vol. flow, standard*	dscfm	52,699	58,244	56,216	55,719
	Isokinetic variation	%	106.6	103.5	103.9	104.7
	Process rate (specify units)	tons/hr	35.9	31.6	35.7	34.4
Indicate basis for process rate (feed or production):			kiln feed tons of green coke/hr			
	Pollutant mass:					AVERAGE
	Filterable PM	grams	0.1739	0.0688	0.1401	0.12760
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.07021	0.02628	0.05521	0.05057
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	31.7147	13.1195	26.6015	23.81193
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.8834	0.4152	0.7451	0.68124
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: WVA029
Ref. No.: 51
Date: 08-Aug-97
Reviewer: A Saltis

Facility: Montainer carbon Company
Location: Moundsville, West Virginia
Source: Combustion Stack #2
Test date: 13-Dec-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 4	Run 5	Run 6	AVERAGE
	Stack temperature	Deg F	1990	1993	1992	1991.7
	Pressure	in. Hg	29.48	29.48	29.48	29.5
	Moisture	%	18.7	17.7	19.9	18.8
	Oxygen	%	7.1	6.7	3.9	5.9
	Gas volume sampled	dscf	38.52	38.07	36.10	37.56
	Vol. flow, actual	acfm	299,168	290,604	291,843	293,872
	Vol. flow, standard*	dscfm	51,646	50,723	49,598	50,656
	Isokinetic variation	%	109.6	110.2	106.9	108.9
	Process rate (specify units)	tons/hr	35.4	31.3	34.6	33.77
Indicate basis for process rate (feed or production):			TONS OF GREEN COKE/HR			
	Pollutant mass:					AVERAGE
	Filterable + front half PM	grams	0.183	0.1065	0.2306	0.17337
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable + front half PM	gr/dscf	0.07331	0.04316	0.09857	0.07168
	Condensable inorg. PM	gr/dscf	0	0	0	0.00000
	Condensable org. PM	gr/dscf	0	0	0	0.00000
	Total condensable PM	gr/dscf	0	0	0	0.00000
	Pollutant mass flux rates:					AVERAGE
	Filterable + front half PM	lb/hr	32.4523	18.7658	41.9029	31.04035
	Condensable inorg. PM	lb/hr	0	0	0	0.00000
	Condensable org. PM	lb/hr	0	0	0	0.00000
	Total condensable PM	lb/hr	0	0	0	0.00000
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable + front half PM	lb/unit	0.9167	0.5995	1.2111	0.90912
	Condensable inorg. PM	lb/unit	0	0	0	0.00000
	Condensable org. PM	lb/unit	0	0	0	0.00000
	Total condensable PM	lb/unit	0	0	0	0.00000

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke56.xls
Ref. No.: 56
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 14 Battery Combustion Stack
Test date: 20-Jun-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	517.1	515.8	507.9	513.6
	Pressure	in. Hg	29.03	29.03	29.03	29.0
	Moisture	%	15.1	15.2	13.6	14.6
	Oxygen	%	10.5	10.2	4.0	8.2
	Gas volume sampled	dscf	75.52	83.94	77.74	79.07
	Vol. flow, actual	acfm	68,016	73,645	66,676	69,446
	Vol. flow, standard*	dscfm	30,283	32,802	30,498	31,194
	Isokinetic variation	%	96.8	99.3	98.9	98.4
	Process rate (specify units)	tons/hr	33.5	39.1	33.5	35.4
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	5.4800E-02	8.6500E-02	0.0456	6.2300E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.011196409	0.015900773	0.009050901	6.2300E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.5000E+00	4.5000E+00	1.1200E+01	6.4000E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.91E+00	4.47E+00	2.37E+00	3.25E+00
	CO2	lb/hr	7.26E+03	1.01E+04	2.34E+04	1.36E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	8.67E-02	1.14E-01	7.06E-02	9.05E-02
	CO2	lb/unit	2.17E+02	2.59E+02	6.98E+02	3.91E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke57.xls
Ref. No.: 57
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 13 Battery Combustion Stack
Test date: 10-Jul-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	506.5	487.6	489.8	494.6
	Pressure	in. Hg	29.21	29.21	29.21	29.2
	Moisture	%	17.4	15.8	16.3	16.5
	Oxygen	%	11.0	11.0	10.8	10.9
	Gas volume sampled	dscf	70.26	72.23	82.41	74.97
	Vol. flow, actual	acfm	59,632	58,473	67,397	61,834
	Vol. flow, standard*	dscfm	26,280	26,782	30,615	27,892
	Isokinetic variation	%	103.8	104.7	104.5	104.3
	Process rate (specify units)	tons/hr	39.1	41.0	44.0	41.4
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	5.5500E-02	5.3300E-02	0.0531	5.3967E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.01218782	0.011386744	0.009942034	1.1172E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.5000E+00	4.3000E+00	~~1.1200E+01~~ 4.0	6.7333E+00
	CO	ppmdv		0	0	
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.7454E+00	2.6140E+00	2.6090E+00	2.6561E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	8.1028E+03	~~8.2578E+03~~ 7.34	~~2.3494E+04~~ 8.39	1.3285E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	7.0188E-02	6.3768E-02	5.9254E-02	6.4403E-02
	CO2	lb/unit	2.0716E+02	~~2.0145E+02~~ 1.79	~~5.3359E+02~~ 1.91	~~2.1407E+02~~ 1.92

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke58.xls
Ref. No.: 58
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 7 Battery Combustion Stack
Test date: 22-Aug-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	489	493	488	490.0
	Pressure	in. Hg	29.24	29.24	29.24	29.2
	Moisture	%	12.1	12.2	11.9	12.0
	Oxygen	%	13.5	13.5	13.5	13.5
	Gas volume sampled	dscf	59.71	60.96	53.13	57.93
	Vol. flow, actual	acfm	78,233	75,390	66,007	73,210
	Vol. flow, standard*	dscfm	37,391	35,856	31,660	34,969
	Isokinetic variation	%	97.1	100.1	97.8	98.3
	Process rate (specify units)	tons/hr	36.7	40.3	31.9	36.3
Indicate basis for process rate (feed or production):		tons of coke produced				
	Pollutant mass:					
	Filterable PM	grams	5.2700E-02	7.6500E-02	3.3900E-02	5.4367E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.3618E-02	1.9365E-02	9.8447E-03	1.4276E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.5000E+00	3.5000E+00	3.5000E+00	3.5000E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.3643E+00	5.9516E+00	2.6715E+00	4.3292E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	8.9668E+03	8.5988E+03	7.5924E+03	8.3860E+03
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.1903E-01	1.4766E-01	8.3654E-02	1.1678E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	2.4455E+02	2.1334E+02	2.3774E+02	2.3188E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke59.xls
Ref. No.: 59
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 19 Battery Combustion Stack
Test date: 14-Nov-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	493	481	496	490.0
	Pressure	in. Hg	29.7	29.7	29.7	29.7
	Moisture	%	12.3	11.8	11.9	12.0
	Oxygen	%	11.5	10.5	12.0	11.3
	Gas volume sampled	dscf	48.78	49.47	49.11	49.12
	Vol. flow, actual	acfm	153,100	152,449	154,290	153,280
	Vol. flow, standard*	dscfm	73,818	74,874	74,530	74,408
	Isokinetic variation	%	103.6	102.5	103.2	103.1
	Process rate (specify units)	tons/hr	148	133.2	103.6	128.3
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	2.6300E-02	2.4300E-02	6.9100E-02	3.9900E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.008318656	0.007579014	0.021709827	3.9900E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.5000E+00	4.0000E+00	4.0000E+00	4.1667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	5.2634E+00	4.8641E+00	1.3869E+01	7.9988E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	2.2760E+04	2.0521E+04	2.0427E+04	2.1236E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	3.5564E-02	3.6517E-02	1.3387E-01	6.8650E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	1.5379E+02	1.5406E+02	1.9717E+02	1.6834E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PTACO45~~ coke60.xls
Ref. No.: 60
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 1 Battery Combustion Stack
Source: Test 1 -3
Test date: 27-Nov-91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	462	468.6	465.7	465.4
	Pressure	in. Hg	29.41	29.42	29.41	29.4
	Moisture	%	10.2	10.6	8.9	9.9
	Oxygen	%	17.0	16.0	16.5	16.5
	Gas volume sampled	dscf	60.49	68.13	62.44	63.69
	Vol. flow, actual	acfm	67,649	74,967	71,798	71,471
	Vol. flow, standard*	dscfm	34,196	37,471	36,671	36,113
	Isokinetic variation	%	104.6	107.5	100.7	104.3
	Process rate (specify units)	tons/hr	50.8	31.4	56.3	46.2
Indicate basis for process rate (feed or production):		tons of coke produced				
	Pollutant mass:					
	Filterable PM	grams	2.3000E-02	3.0200E-02	2.7100E-02	2.6767E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	5.8669E-03	6.8397E-03	6.6969E-03	6.4678E-03
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.0000E+00	2.5000E+00	2.7000E+00	2.7333E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.7196E+00	2.1968E+00	2.1050E+00	2.0071E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	7.0291E+03	6.4186E+03	6.7842E+03	6.7440E+03
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	3.3872E-02	6.9897E-02	3.7403E-02	4.7057E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	1.3845E+02	2.0423E+02	1.2055E+02	1.5441E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC042~~ coke61.xls
Ref. No.: 61
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 13 Battery Combustion Stack
Source: Test 1 -3
Test date: 12-Mar-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 3	Run 2	Run 1	AVERAGE
	Stack temperature	Deg F	429.8	422.5	451.1	434.5
	Pressure	in. Hg	28.96	28.96	28.96	29.0
	Moisture	%	12.9	13.2	12.9	13.0
	Oxygen	%	12.5	12.5	12.0	12.3
	Gas volume sampled	dscf	78.18	82.95	78.20	79.78
	Vol. flow, actual	acfm	65,766	72,367	68,978	69,037
	Vol. flow, standard*	dscfm	32,919	36,380	33,708	34,336
	Isokinetic variation	%	94.2	90.4	92.0	92.2
	Process rate (specify units)	tons/hr	27.3	54.2	39.4	40.3
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	3.6200E-02	3.6300E-02	0.0325	3.5000E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.007144432	0.00675245	0.006412396	6.7698E-03
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.0000E+00	3.0000E+00	2.0000E+00	2.6667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.0159E+00	2.1056E+00	1.8527E+00	1.9914E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	4.0000E+00	7.4781E+03	4.6192E+03	4.0338E+03
	CO	lb/hr	0	0	0	0
		lb/hr	6.11E+3			
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	7.3806E-02	3.8833E-02	4.7005E-02	5.3215E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	~~1.4646E-01~~ 1.48E+2	1.3792E+02	1.1719E+02	~~8.5085E+01~~
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

1.68E+2

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke62.xls
Ref. No.: 62
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 14 Battery Combustion Stack
Test date: 24-Mar-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	432.5	450	437.3	439.9
	Pressure	in. Hg	28.29	28.29	28.29	28.3
	Moisture	%	13.1	14.1	12.6	13.3
	Oxygen	%	12.5	12.0	11.0	11.8
	Gas volume sampled	dscf	64.62	70.73	57.69	64.35
	Vol. flow, actual	acfm	66,447	73,245	59,273	66,322
	Vol. flow, standard*	dscfm	32,307	34,533	28,813	31,884
	Isokinetic variation	%	94.5	96.8	94.6	95.3
	Process rate (specify units)	tons/hr	11.3	33.8	21.4	22.2
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	4.1400E-02	4.5200E-02	0.0314	3.9333E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.009885362	0.009859982	0.008398225	9.3812E-03
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.5000E+00	4.0000E+00	1.1200E+01	6.5667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.7374E+00	2.9185E+00	2.0741E+00	2.5767E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	9.9612E+03	9.4646E+03	2.2111E+04	1.3846E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.4121E-01	8.6387E-02	9.7046E-02	1.4155E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	8.7772E+02	2.8014E+02	1.0346E+03	7.3081E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC055~~ coke63.xls
Ref. No.: 63
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Battery B Combustion Stack
Source: Test 1 -3
Test date: 7-Jun-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	489	479.6	479.5	482.7
	Pressure	in. Hg	29.57	29.57	29.57	29.6
	Moisture	%	12.6	12.4	10.3	11.8
	Oxygen	%	12.7	12.5	11.3	12.2
	Gas volume sampled	dscf	83.61	86.79	87.28	85.89
	Vol. flow, actual	acfm	214,768	228,137	226,646	223,184
	Vol. flow, standard*	dscfm	103,214	110,989	112,919	109,041
	Isokinetic variation	%	101.1	97.6	96.8	98.5
	Process rate (specify units)	tons/hr	100.4	55.8	23.5	59.9
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	4.0100E-02	3.8400E-02	0.0336	3.7367E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.007400435	0.00682704	0.005940123	6.7225E-03
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.0000E+00	2.7000E+00	3.0000E+00	2.9000E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.5471E+00	6.4948E+00	5.7493E+00	6.2637E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	2.1216E+04	2.0533E+04	2.3211E+04	2.1653E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	6.5210E-02	1.1644E-01	2.4433E-01	1.4199E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	2.1132E+02	3.6812E+02	9.8639E+02	5.2194E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC044~~ coke64.xls
Ref. No.: 64
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 19 Battery Combustion Stack
Source: Test 1 -3
Test date: 30-Jul-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	488.3	478.1	458.6	475.0
	Pressure	in. Hg	29.24	29.24	29.24	29.2
	Moisture	%	13.8	13.7	12.6	13.4
	Oxygen	%	13.5	13.8	12.6	13.3
	Gas volume sampled	dscf	41.98	44.20	42.17	42.78
	Vol. flow, actual	acfm	135,267	142,115	137,738	138,373
	Vol. flow, standard*	dscfm	63,446	67,461	67,622	66,176
	Isokinetic variation	%	104.1	103.1	98.2	101.8
	Process rate (specify units)	tons/hr	47.1	87.5	47.1	60.5
Indicate basis for process rate (feed or production):		coke produced				
	Pollutant mass:					
	Filterable PM	grams	1.6400E-02	2.2600E-02	1.3400E-02	1.7467E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.006028492	0.007889012	0.004903059	1.7467E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.5000E+00	3.0000E+00	2.7000E+00	3.0667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.2784E+00	4.5617E+00	2.8419E+00	3.5607E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.5215E+04	1.3867E+04	1.2510E+04	1.3864E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	6.9619E-02	5.2161E-02	6.0349E-02	6.0710E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	3.2310E+02	1.5856E+02	2.6566E+02	2.4911E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: PAAC046 coke65.xls
Ref. No.: 65
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 9 Battery Combustion Stack
Source: Test 1 -3
Test date: 8-Oct-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	500.5	483.3	514.7	499.5
	Pressure	in. Hg	29.28	29.18	29.13	29.2
	Moisture	%	8.6	11.2	11.6	10.5
	Oxygen	%	13.5	3.0	3.0	6.5
	Gas volume sampled	dscf	74.84	69.61	71.73	72.06
	Vol. flow, actual	acfm	84,900	83,380	84,890	84,390
	Vol. flow, standard*	dscfm	41,745	40,419	39,578	40,580
	Isokinetic variation	%	102.6	98.6	103.7	101.6
	Process rate (specify units)	tons/hr	63.7	58.0	51.9	57.9
Indicate basis for process rate (feed or production):		coke produced				
	Pollutant mass:					
	Filterable PM	grams	1.7800E-02	2.8800E-02	2.5500E-02	2.4033E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	3.6700E-03	6.3837E-03	5.4853E-03	5.1797E-03
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.3000E+00	1.3800E+01	1.3500E+01	1.0533E+01
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.3132E+00	2.2116E+00	1.8608E+00	1.7952E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.2299E+04	3.8218E+04	3.6609E+04	2.9042E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.0607E-02	3.8149E-02	3.5883E-02	3.1546E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	1.9301E+02	6.5923E+02	7.0595E+02	5.1940E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: Coke production

Filename: coke66.xls
Ref. No.: 66
Date: 14-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 1,2,3 Battery Baghouse Stacks Pushing
Test date: 03-Nov-92

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf	0.01257	0.01244	0.00523	1.0079E-02
	Condensable inorganic PM	gr/dscf				
	Condensable organic PM	gr/dscf				
	Total condensable PM	gr/dscf				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	0.37283	0.42288	0.18328	3.2633E-01
	Condensable inorganic PM	lb/hr				
	Condensable organic PM	lb/hr				
	Total condensable PM	lb/hr				
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed				AVERAGE
	Filterable PM	lb/unit	0.00332	0.00414	0.00164	3.0315E-03
	Condensable inorganic PM	lb/unit				
	Condensable organic PM	lb/unit				
	Total condensable PM	lb/unit				

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename:
Ref. No.: 66
Date: 14-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: 1,2,3 Battery Baghouse Stacks
Source: Test 1 Stack 1 through 4
Test date: 03-Nov-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	142.0	136.5	128.2	131.7	
	Pressure	in. Hg	29.4	29.4	29.4	29.4	
	Moisture	%	2.0	1.8	1.9	1.8	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	34.2	33.7	26.2	25.7	
	Vol. flow, actual	acfm	25807.0	26687.0	24216.0	25123.0	
	Vol. flow, standard*	dscfm	21790.6	22773.9	20942.6	21631.5	
	Isokinetic variation	%	104.7	98.5	108.3	102.7	
	Process rate (specify units)	tons/hr	112.3	112.3	112.3	112.3	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.00500	0.00410	0.00820	0.00600	0.02330
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00225	0.00188	0.00483	0.00361	0.01257
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr pushing	0.06759	0.05888	0.13908	0.10729	0.37283
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00060	0.00052	0.00124	0.00096	0.00332
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

TEST RUN 2

Filename:
Ref. No.: 66
Date: 14-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: 1,2,3 Battery Baghouse Stacks
Source: Test 2 Stack 1 through 4
Test date: 04-Nov-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	AVERAGE
	Stack temperature	Deg F	144.2	136.9	128.3	125.0	133.6
	Pressure	in. Hg	29.2	29.1	29.2	29.2	29.2
	Moisture	%	2.2	2.4	2.1	2.2	2.2
	Oxygen	%	20.5	20.5	20.5	20.5	20.5
	Gas volume sampled	dscf	36.1	37.6	29.6	28.3	32.9
	Vol. flow, actual	acfm	28656.0	29354.0	28359.0	29564.0	28983.3
	Vol. flow, standard*	dscfm	23853.5	24686.9	24793.0	25485.8	24704.8
	Isokinetic variation	%	100.8	101.4	105.7	96.0	101.0
	Process rate (specify units)	tons/hr	102.3	102.3	102.3	102.3	102.3
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00810	0.00510	0.00650	0.00640	0.02610
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00347	0.00209	0.00338	0.00350	0.01244
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.11377	0.07115	0.11541	0.12256	0.42288
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00111	0.00070	0.00113	0.00120	0.00414
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename:
Ref. No.: 66
Date: 14-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: 1,2,3 Battery Baghouse Stacks
Source: Test 3 Stack 1 through 4
Test date: 03-Nov-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	121.0	113.0	104.0	102.8	
	Pressure	in. Hg	29.2	29.2	29.2	29.2	
	Moisture	%	1.7	1.5	1.8	1.7	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	38.0	40.1	32.7	30.9	
	Vol. flow, actual	acfm	28269.0	29316.0	27958.0	29036.0	
	Vol. flow, standard*	dscfm	24662.7	25986.0	25101.0	26156.3	
	Isokinetic variation	%	102.5	102.9	112.6	102.2	
	Process rate (specify units)	tons/hr	111.8	111.8	111.8	111.8	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00310	0.00210	0.00310	0.00340	0.01170
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00126	0.00081	0.00146	0.00170	0.00523
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.04274	0.02888	0.05054	0.06112	0.18328
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00038	0.00026	0.00045	0.00055	0.00164
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

Filename: coke67.xls
Ref. No.: 67
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS CLAIRTON WORKS
Location: B BATTERY BAGHOUSE
Source: STACK EMISSIONS NO. 1-14
Test date: 11/18/92

RESULTS FROM 14 STACKS ARE SUMMED AND MULTIPLIED BY 12/14
BECAUSE 12 OF 14 STACKS OPERATE AT A GIVEN TIME

			sum x 12/14
	Filterable PM	gr/dscf	0.01695
	Condensable inorganic PM	gr/dscf	
	Condensable organic PM	gr/dscf	
	Total condensable PM	gr/dscf	
	Pollutant mass flux rates:		
	Filterable PM	lb/hr	3.70094
	Condensable inorganic PM	lb/hr	
	Condensable organic PM	lb/hr	
	Total condensable PM	lb/hr	
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed	
	Filterable PM	lb/unit	0.03299
	Condensable inorganic PM	lb/unit	
	Condensable organic PM	lb/unit	
	Total condensable PM	lb/unit	

EMISSION TEST REPORT REVIEW SUMMARY
Source Category:

TEST RUN

Filename: coke67.xls
Ref. No.: 67
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS CLAIRTON WORKS
Location: Clairton, PA
Source: B BATTERY BAGHOUSE
Test date: 11/18/92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Stack 1	Stack 2	Stack 3	Stack 4	Stack 5	Stack 6
	Stack temperature	Deg F	92.0	108.0	93.0	126.0	97.0	102.0
	Pressure	in. Hg	29.4	29.9	29.3	29.5	29.4	29.6
	Moisture	%	0.7	1.1	0.7	2.5	1.0	1.1
	Oxygen	%	20.5	20.5	20.5	20.5	20.5	20.5
	Gas volume sampled	dscf	88.7	59.6	48.9	57.1	75.9	83.6
	Vol. flow, actual	acfm	39200.0	26100.0	20100.0	32000.0	32700.0	38300.0
	Vol. flow, standard*	dscfm	36561.2	23979.1	18649.3	27679.7	30102.9	35158.9
	Isokinetic variation	%	101.9	94.5	109.8	104.5	106.0	100.1
	Process rate (specify units)	tons/hr	112.2	111.2	111.2	111.2	111.2	111.2
Indicate basis for process rate (feed or production):		tons of coke pushed /hr						
	Pollutant mass:							
	Filterable PM	grams	0.00480	0.01110	0.00550	0.00890	0.00440	0.00580
	Condensable inorganic PM	grams						
	Condensable organic PM	grams						
	Total condensable PM	grams						
	Pollutant concentrations:							
	Filterable PM	gr/dscf	0.00084	0.00288	0.00174	0.00241	0.00089	0.00107
	Condensable inorganic PM	gr/dscf						
	Condensable organic PM	gr/dscf						
	Total condensable PM	gr/dscf						
	Pollutant mass flux rates:							
	Filterable PM	lb/hr	0.26177	0.59101	0.27754	0.57086	0.23071	0.32263
	Condensable inorganic PM	lb/hr						
	Condensable organic PM	lb/hr						
	Total condensable PM	lb/hr						
	Emission factors (ENGLISH UNITS):							
	Filterable PM	lb/unit	0.00233	0.00527	0.00247	0.00509	0.00206	0.00288
	Condensable inorganic PM	lb/unit						
	Condensable organic PM	lb/unit						
	Total condensable PM	lb/unit						
		lb/unit						

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

TEST RUN

USS Clairton
1,2,3 Battery Baghouse Stacks
Test 1 Stack 1 through 4
03-Nov-92

Values reported								
Stack 7	Stack 8	Stack 9	Stack 10	Stack 11	Stack 12	Stack 13	Stack 14	SUM
133.0	129.0	93.0	90.0	90.0	91.0	94.0	97.0	
29.5	29.5	29.4	29.3	29.3	29.3	29.5	29.5	
2.8	2.9	0.8	0.7	1.0	1.1	1.2	1.1	
20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	
54.6	50.8	87.5	91.0	45.6	39.9	73.3	50.3	
32200.0	35400.0	39200.0	18600.0	16400.0	29400.0	20100.0	25807.0	
27430.0	30329.5	36445.9	17351.7	15247.9	27257.6	18648.5	23838.5	
100.8	103.2	93.4	101.5	107.5	91.8	94.2	110.3	
111.2	111.2	111.2	111.2	111.2	111.2	111.2	111.2	
0.00620	0.00380	0.00590	0.00680	0.00540	0.00280	0.00370	0.00380	0.07890
								SUM
0.00175	0.00115	0.00104	0.00115	0.00183	0.00108	0.00078	0.00116	0.01977
								SUM
0.41229	0.29989	0.32510	0.17153	0.23880	0.25321	0.12447	0.23796	4.31777
								SUM
0.00367	0.00267	0.00290	0.00153	0.00213	0.00226	0.00111	0.00212	0.03848

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke69.xls
Ref. No.: 69
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 10-Dec-92

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf		0.04204	0.04110	4.1569E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr		1.39	1.36	1.38
		RUN 1 IS VOID!				
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed				AVERAGE
	Filterable PM	lb/unit		0.0124	0.0122	0.0123

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke69.xls
Ref. No.: 69
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 08-Dec-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
Run 1	Stack temperature	Deg F	99.0	89.0	101.0	92.0	
	Pressure	in. Hg	29.7	29.7	29.7	29.7	
	Moisture	%	1.1	1.2	1.3	1.0	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	38.7	51.7	35.8	55.7	
	Vol. flow, actual	acfm	24408.0	26311.0	29128.0	30479.0	
	Vol. flow, standard*	dscfm	22610.3	24808.7	26850.2	28621.1	
	Isokinetic variation	%	114.0	98.4	62.9	129.8	
	Process rate (specify units)	tons/hr	111.6	111.6	111.6	111.6	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.18440	0.01850	0.00760	0.00750	0.21800
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.07361	0.00552	0.00327	0.00208	0.08448
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
							#DIV/0!
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	2.34914	0.19316	0.12407	0.08389	2.75026
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.02104	0.00173	0.00111	0.00075	0.02463
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

TEST RUN 2

Filename: coke69.xls
Ref. No.: 69
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 09-Dec-97

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
Run 2	Stack temperature	Deg F	101.0	95.0	100.0	87.0	
	Pressure	in. Hg	29.7	29.7	29.7	29.7	
	Moisture	%	1.1	1.2	1.3	1.6	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	37.7	31.8	33.3	45.4	
	Vol. flow, actual	acfm	24656.0	28634.0	29332.0	30453.0	
	Vol. flow, standard*	dscfm	22750.9	26734.2	24793.0	28731.5	
	Isokinetic variation	%	110.5	102.7	106.1	105.5	
	Process rate (specify units)	tons/hr	111.6	111.6	111.6	111.6	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.08880	0.00450	0.00240	0.00700	0.10270
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.03636	0.00219	0.00111	0.00238	0.04204
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	1.16759	0.08252	0.03896	0.09644	1.38551
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.01046	0.00074	0.00035	0.00086	0.01241
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY TEST RUN 3

Source Category: coke production

Filename: coke69.xls
Ref. No.: 69
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 08-Dec-92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
Run 3	Stack temperature	Deg F	94.0	89.0	94.0	83.0	
	Pressure	in. Hg	29.1	29.2	29.2	29.2	
	Moisture	%	1.5	1.9	1.9	1.0	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	37.1	30.0	32.5	43.5	
	Vol. flow, actual	acfm	24490.0	27714.0	29952.0	29532.0	
	Vol. flow, standard*	dscfm	22391.2	25518.3	27339.4	27744.9	
	Isokinetic variation	%	110.6	101.7	102.7	104.5	
	Process rate (specify units)	tons/hr	111.6	111.6	111.6	111.6	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.07430	0.00520	0.01050	0.00720	0.09720
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.03088	0.00267	0.00499	0.00255	0.04110
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.97605	0.09621	0.19263	0.09993	1.36482
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00874	0.00086	0.00173	0.00090	0.01222
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke70.xls
Ref. No.: 70
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 3 Battery Combustion Stack
Test date: 8/4-5/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	522	551	540	537.7
	Pressure	in. Hg	29.28	29.28	29.35	29.3
	Moisture	%	12.7	13.8	13.3	13.3
	Oxygen	%	4.0	4.0	4.0	4.0
	Gas volume sampled	dscf	55.98	58.35	58.95	57.76
	Vol. flow, actual	acfm	73,800	75,100	74,500	74,467
	Vol. flow, standard*	dscfm	33,900	33,086	33,455	33,480
	Isokinetic variation	%	97.6	104.3	104.2	102.0
	Process rate (specify units)	tons/hr	50.8	50.4	40.3	47.2
Indicate basis for process rate (feed or production):		tons of coke produced				
	Pollutant mass:					
	Filterable PM	grams	1.3620E-01	5.4500E-02	3.3900E-02	7.4867E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	3.7542E-02	1.4411E-02	8.8731E-03	2.0276E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	1.3000E+01	1.3000E+01	1.3000E+01	1.3000E+01
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.0909E+01	4.0870E+00	2.5444E+00	5.8467E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	3.0196E+04	2.9471E+04	2.9799E+04	2.9822E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.1487E-01	8.1120E-02	6.3128E-02	1.1971E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	5.9477E+02	5.8494E+02	7.3934E+02	6.3968E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~BAAQ097~~ coke71.xls
Ref. No.: 71
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 2 Battery Combustion Stack
Source: Test 1 -3
Test date: 8/25-26/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	526	528	529	527.7
	Pressure	in. Hg	29.43	29.43	29.44	29.4
	Moisture	%	14.7	14.7	14.4	14.6
	Oxygen	%	12.5	12.5	12.5	12.5
	Gas volume sampled	dscf	64.98	61.20	64.28	63.49
	Vol. flow, actual	acfm	78,900	75,300	78,900	77,700
	Vol. flow, standard*	dscfm	35,450	33,764	35,478	34,897
	Isokinetic variation	%	108.4	107.2	107.1	107.6
	Process rate (specify units)	tons/hr	53.0	53.4	54.6	53.7
Indicate basis for process rate (feed or production):		coke produced				
	Pollutant mass:					
	Filterable PM	grams	9.6900E-02	4.0800E-02	8.0600E-02	7.2767E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	2.3010E-02	1.0287E-02	1.9348E-02	1.7548E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	5.0000E+00	5.0000E+00	5.0000E+00	5.0000E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.9916E+00	2.9770E+00	5.8836E+00	5.2841E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.2145E+04	1.1567E+04	1.2155E+04	1.1955E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.3193E-01	5.5767E-02	1.0778E-01	9.8496E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	2.2918E+02	2.1668E+02	2.2267E+02	2.2284E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke72.xls
Ref. No.: 72
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 19&20 battery baghouse
Test date: 10/21-23/92

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf	0.01252	0.00592	0.00978	9.4068E-03
	Condensable inorganic PM	gr/dscf				
	Condensable organic PM	gr/dscf				
	Total condensable PM	gr/dscf				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	0.37380	0.17548	0.29099	2.8009E-01
	Condensable inorganic PM	lb/hr				
	Condensable organic PM	lb/hr				
	Total condensable PM	lb/hr				
	Emission factors (ENGLISH UNITS):	lb/ton of coke pushed				AVERAGE
	Filterable PM	lb/unit	0.00296	0.00138	0.00223	2.1892E-03
	Condensable inorganic PM	lb/unit				
	Condensable organic PM	lb/unit				
	Total condensable PM	lb/unit				

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke72.xls
Ref. No.: 72
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 19&20 battery baghouse
Test date: 10/21-23/92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	112.0	120.0	110.0	118.0	
	Pressure	in. Hg	29.6	29.6	29.6	29.6	
	Moisture	%	2.7	2.2	2.5	1.9	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	36.4	53.2	41.6	57.5	
	Vol. flow, actual	acfm	25913.0	28215.0	27282.0	27594.0	
	Vol. flow, standard*	dscfm	22993.8	24834.8	24325.5	24455.3	
	Isokinetic variation	%	105.7	101.0	114.1	110.9	
	Process rate (specify units)	tons/hr	126.4	126.4	126.4	126.4	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00730	0.01040	0.00730	0.01380	0.03880
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00309	0.00302	0.00271	0.00370	0.01252
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.08793	0.09257	0.08139	0.11191	0.37380
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00070	0.00073	0.00064	0.00089	0.00296
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

RUN 2

Filename: coke72.xls
Ref. No.: 72
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 19&20 battery baghouse
Test date: 10/21-23/92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	AVERAGE
	Stack temperature	Deg F	113.0	107.0	113.0	112.0	111.3
	Pressure	in. Hg	29.9	29.9	29.9	29.9	29.9
	Moisture	%	1.8	1.9	1.9	1.7	1.8
	Oxygen	%	20.5	20.5	20.5	20.5	20.5
	Gas volume sampled	dscf	36.4	50.2	42.7	56.4	46.4
	Vol. flow, actual	acfm	25322.0	26891.0	27668.0	26686.0	26641.8
	Vol. flow, standard*	dscfm	22898.0	24573.8	24793.0	24206.4	24117.8
	Isokinetic variation	%	106.0	96.3	112.8	109.9	106.3
	Process rate (specify units)	tons/hr	127.1	127.1	127.1	127.1	102.3
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00450	0.00440	0.00320	0.00550	0.01760
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00191	0.00135	0.00116	0.00150	0.00592
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.05398	0.04107	0.03543	0.04501	0.17548
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00042	0.00032	0.00028	0.00035	0.00138
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke72.xls
Ref. No.: 72
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 19&20 battery baghouse
Test date: 10/21-23/92

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	111.0	118.0	114.0	109.0	
	Pressure	in. Hg	29.7	29.8	29.8	29.8	
	Moisture	%	1.8	1.8	1.8	1.7	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	45.7	37.5	39.3	54.0	
	Vol. flow, actual	acfm	258.7.0	26724.0	27901.0	27283.0	
	Vol. flow, standard*	dscfm	23293.0	23836.6	25068.3	24745.3	
	Isokinetic variation	%	92.5	104.9	104.6	102.8	
	Process rate (specify units)	tons/hr	130.5	130.5	130.5	130.5	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.00940	0.00680	0.00540	0.00590	0.02750
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00317	0.00280	0.00212	0.00169	0.00978
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.09135	0.08241	0.06568	0.05155	0.29099
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00070	0.00063	0.00050	0.00040	0.00223
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke73.xls
Ref. No.: 73
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: Battery 13, 14, 15 baghouse stacks
Test date: 10/19-21/93

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf	0.01802	0.00974	0.01164	1.3134E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	0.65026	0.35140	0.39649	4.6605E-01
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed				AVERAGE
	Filterable PM	lb/unit	0.00553	0.00299	0.00337	3.9664E-03

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke73.xls
Ref. No.: 73
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: Battery 13, 14, 15 baghouse stacks
Test date: 10/19-21/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	118.0	122.0	117.0	111.0	
	Pressure	in. Hg	29.5	29.5	29.5	29.5	
	Moisture	%	2.0	1.9	2.0	1.9	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	45.9	46.8	37.5	35.6	
	Vol. flow, actual	acfm	31900.0	31000.0	28700.0	27400.0	
	Vol. flow, standard*	dscfm	28156.8	27202.1	25376.2	24506.3	
	Isokinetic variation	%	97.6	100.9	95.3	91.6	
	Process rate (specify units)	tons/hr	117.5	117.5	117.5	117.5	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.00540	0.01100	0.01140	0.01820	0.04600
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00182	0.00363	0.00469	0.00789	0.01802
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
							#DIV/0!
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.07192	0.13882	0.16750	0.27202	0.65026
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00061	0.00118	0.00143	0.00232	0.00553
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

TEST RUN 2

Filename: coke73.xls
Ref. No.: 73
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: Battery 13, 14, 15 baghouse stacks
Test date: 10/19-21/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	116.0	124.0	116.0	108.0	
	Pressure	in. Hg	29.5	29.5	29.5	29.4	
	Moisture	%	2.4	2.3	2.3	2.3	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	46.2	47.0	37.0	37.4	
	Vol. flow, actual	acfm	31900.0	31100.0	28700.0	27400.0	
	Vol. flow, standard*	dscfm	28139.2	27085.5	24793.0	24452.1	
	Isokinetic variation	%	98.3	101.9	94.3	96.2	
	Process rate (specify units)	tons/hr	117.5	117.5	117.5	117.5	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00400	0.00640	0.00750	0.00770	0.02560
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00134	0.00210	0.00313	0.00318	0.00974
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.05290	0.08008	0.10912	0.10930	0.35140
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00045	0.00068	0.00093	0.00093	0.00299
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke73.xls
Ref. No.: 73
Date: 17-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: Battery 13, 14, 15 baghouse stacks
Test date: 10/19-21/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 3	Stack 4	SUM
	Stack temperature	Deg F	121.0	126.0	121.0	112.0	
	Pressure	in. Hg	29.3	29.3	29.3	29.3	
	Moisture	%	2.2	2.2	2.3	2.2	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	47.1	44.4	36.4	33.1	
	Vol. flow, actual	acfm	32100.0	30700.0	28900.0	23900.0	
	Vol. flow, standard*	dscfm	27938.8	26492.3	25127.9	21129.1	
	Isokinetic variation	%	100.7	98.1	99.1	106.7	
	Process rate (specify units)	tons/hr	117.5	117.5	117.5	117.5	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00480	0.00620	0.00800	0.00970	0.02870
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00157	0.00215	0.00339	0.00452	0.01164
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.06182	0.08032	0.11991	0.13444	0.39649
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00053	0.00068	0.00102	0.00114	0.00337
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke74.xls
Ref. No.: 74
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 1,2,3 Battery Baghouse Stacks
Test date: 2/22-24/94

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf	0.02288	0.02147	0.01942	2.1258E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	0.78680	0.73087	0.67957	7.3241E-01
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed				AVERAGE
	Filterable PM	lb/unit	0.00782	0.00690	0.00642	7.0458E-03

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke74.xls
Ref. No.: 74
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 1,2,3 Battery Baghouse Stacks
Test date: 2/22-24/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	103.0	102.0	102.0	89.0	
	Pressure	in. Hg	29.9	29.9	29.8	29.8	
	Moisture	%	1.6	1.4	1.2	1.3	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	39.6	48.9	37.9	42.9	
	Vol. flow, actual	acfm	25900.0	28200.0	27000.0	27800.0	
	Vol. flow, standard*	dscfm	23845.3	26070.6	24986.8	26309.7	
	Isokinetic variation	%	98.4	105.0	97.8	107.8	
	Process rate (specify units)	tons/hr	100.6	100.6	100.6	100.6	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.02560	0.00770	0.01680	0.01010	0.06020
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00999	0.00243	0.00684	0.00363	0.02288
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.32998	0.08771	0.23676	0.13235	0.78680
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00328	0.00087	0.00235	0.00132	0.00782
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

TEST RUN 2

Filename: coke74.xls
Ref. No.: 74
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 1,2,3 Battery Baghouse Stacks
Test date: 2/22-24/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	97.0	95.0	102.0	89.0	
	Pressure	in. Hg	29.4	29.4	29.4	29.3	
	Moisture	%	2.0	1.8	1.8	1.7	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	40.6	47.2	43.2	42.8	
	Vol. flow, actual	acfm	26000.0	28300.0	27300.0	28100.0	
	Vol. flow, standard*	dscfm	23709.4	25961.5	24793.0	26050.7	
	Isokinetic variation	%	101.7	101.8	100.5	108.3	
	Process rate (specify units)	tons/hr	105.9	105.9	105.9	105.9	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.03187	0.00610	0.00760	0.01290	0.05847
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.01211	0.00199	0.00272	0.00465	0.02147
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.39792	0.07167	0.09337	0.16791	0.73087
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00376	0.00068	0.00088	0.00159	0.00690
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY TEST RUN 3

Source Category: coke production

Filename: coke74.xls
Ref. No.: 74
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 1,2,3 Battery Baghouse Stacks
Test date: 2/22-24/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	93.0	90.0	96.0	84.0	
	Pressure	in. Hg	29.2	29.2	29.2	29.1	
	Moisture	%	1.5	1.3	1.2	1.3	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	39.8	48.4	42.8	42.2	
	Vol. flow, actual	acfm	27200.0	27100.0	27200.0	28000.0	
	Vol. flow, standard*	dscfm	24931.0	25017.0	24863.5	26114.9	
	Isokinetic variation	%	94.6	108.0	99.1	106.7	
	Process rate (specify units)	tons/hr	105.9	105.9	105.9	105.9	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.02140	0.00560	0.01100	0.01470	0.05270
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00829	0.00178	0.00396	0.00538	0.01942
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.28656	0.06184	0.13655	0.19463	0.67957
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00271	0.00058	0.00129	0.00184	0.00642
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke75.xls
Ref. No.: 75
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 10-Mar-94

			test 1	test 2	test3	AVG
	Filterable PM	gr/dscf	0.01978	0.01027	0.01300	1.4347E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	0.67541	0.32424	0.44719	4.8228E-01
	Emission factors (ENGLISH UNITS):	lb/tons of coke pushed				AVERAGE
	Filterable PM	lb/unit	0.00655	0.00341	0.00423	4.7325E-03

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke75.xls
Ref. No.: 75
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 10-Mar-94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	100.0	98.0	100.0	99.0	
	Pressure	in. Hg	29.5	29.5	29.6	29.5	
	Moisture	%	1.5	1.5	1.4	1.5	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	38.8	38.4	44.7	45.6	
	Vol. flow, actual	acfm	24800.0	27100.0	27700.0	28200.0	
	Vol. flow, standard*	dscfm	22731.9	24937.6	25441.7	25877.1	
	Isokinetic variation	%	101.9	101.6	104.1	105.4	
	Process rate (specify units)	tons/hr	103.0	103.0	103.0	103.0	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						
	Filterable PM	grams	0.00910	0.01820	0.01710	0.00870	0.05310
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00362	0.00731	0.00590	0.00294	0.01978
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
							#DIV/0!
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.11329	0.25081	0.20662	0.10469	0.67541
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00110	0.00243	0.00201	0.00102	0.00655
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

TEST RUN 2

Filename: coke75.xls
Ref. No.: 75
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 10-Mar-94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	88.0	87.0	92.0	89.0	
	Pressure	in. Hg	29.7	29.8	29.7	29.7	
	Moisture	%	1.7	1.7	1.5	1.7	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	38.3	41.0	44.4	46.5	
	Vol. flow, actual	acfm	23200.0	26700.0	26900.0	28900.0	
	Vol. flow, standard*	dscfm	21826.4	25198.2	24793.0	27139.4	
	Isokinetic variation	%	105.0	107.4	104.4	102.6	
	Process rate (specify units)	tons/hr	95.0	95.0	95.0	95.0	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00440	0.00900	0.00870	0.00630	0.02840
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00177	0.00339	0.00302	0.00209	0.01027
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.04909	0.10822	0.09501	0.07192	0.32424
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00052	0.00114	0.00100	0.00076	0.00341
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke75.xls
Ref. No.: 75
Date: 18-Nov-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: 7,8,9 Battery Baghouse Stacks
Test date: 10-Mar-94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Stack 1	Stack 2	Stack 4	Stack 5	SUM
	Stack temperature	Deg F	93.0	90.0	93.0	90.0	
	Pressure	in. Hg	26.3	29.3	29.3	29.3	
	Moisture	%	1.4	1.4	1.3	1.4	
	Oxygen	%	20.5	20.5	20.5	20.5	
	Gas volume sampled	dscf	37.8	39.0	45.9	47.0	
	Vol. flow, actual	acfm	24700.0	27000.0	27100.0	29200.0	
	Vol. flow, standard*	dscfm	20408.7	25019.0	25000.7	27029.9	
	Isokinetic variation	%	99.4	102.6	108.6	104.0	
	Process rate (specify units)	tons/hr	105.7	105.7	105.7	105.7	
Indicate basis for process rate (feed or production):		tons of coke pushed /hr					
	Pollutant mass:						SUM
	Filterable PM	grams	0.00600	0.01230	0.01240	0.00460	0.03530
	Condensable inorganic PM	grams					
	Condensable organic PM	grams					
	Total condensable PM	grams					
	Pollutant concentrations:						SUM
	Filterable PM	gr/dscf	0.00245	0.00487	0.00417	0.00151	0.01300
	Condensable inorganic PM	gr/dscf					
	Condensable organic PM	gr/dscf					
	Total condensable PM	gr/dscf					
	Pollutant mass flux rates:						SUM
	Filterable PM	lb/hr	0.07050	0.17190	0.14715	0.05764	0.44719
	Condensable inorganic PM	lb/hr					
	Condensable organic PM	lb/hr					
	Total condensable PM	lb/hr					
	Emission factors (ENGLISH UNITS):						SUM
	Filterable PM	lb/unit	0.00067	0.00163	0.00139	0.00055	0.00423
	Condensable inorganic PM	lb/unit					
	Condensable organic PM	lb/unit					
	Total condensable PM	lb/unit					
		lb/unit					

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC032~~ Coke76.xls
Ref. No.: 76
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 7 Battery Combustion Stack
Source: Test 1 -3
Test date: 2/26-27/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	535	537	538	536.7
	Pressure	in. Hg	29.03	29.03	29.03	29.0
	Moisture	%	14.7	15.2	15.9	15.3
	Oxygen	%	12.0	12.0	12.0	12.0
	Gas volume sampled	dscf	78.13	83.30	82.59	81.34
	Vol. flow, actual	acfm	76,300	83,700	83,900	81,300
	Vol. flow, standard*	dscfm	33,510	36,471	36,220	35,400
	Isokinetic variation	%	105.1	103.0	102.8	103.6
	Process rate (specify units)	tons/hr	56.4	49.6	44.7	50.2
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	2.0910E-01	1.1480E-01	1.1750E-01	1.4713E-01
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	4.1297E-02	2.1264E-02	2.1953E-02	2.8171E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.0000E+00	4.0000E+00	4.0000E+00	4.0000E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.1861E+01	6.6474E+00	6.8153E+00	8.4414E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	9.1841E+03	9.9956E+03	9.9269E+03	9.7022E+03
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.1013E-01	1.3395E-01	1.5260E-01	1.6556E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	1.6270E+02	2.0143E+02	2.2227E+02	1.9547E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC058~~ coke77.xls
Ref. No.: 77
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 9 Battery Combustion Stack
Source: ~~Test 1-3.~~
Test date: 5/11-12/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	533	537	540	536.7
	Pressure	in. Hg	29.38	29.38	29.31	29.4
	Moisture	%	13.4	13.6	13.4	13.5
	Oxygen	%	12.5	12.5	12.0	12.3
	Gas volume sampled	dscf	78.87	81.49	80.07	80.14
	Vol. flow, actual	acfm	82,700	82,900	75,800	80,467
	Vol. flow, standard*	dscfm	37,394	37,248	33,953	36,198
	Isokinetic variation	%	95.1	98.7	106.4	100.1
	Process rate (specify units)	tons/hr	60.94	60.92	50.77	57.54
Indicate basis for process rate (feed or production):		Coke produced				
	Pollutant mass:					
	Filterable PM	grams	7.2800E-02	8.2700E-02	8.1600E-02	7.9033E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.4242E-02	1.5660E-02	1.5725E-02	1.5209E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.0000E+00	4.0000E+00	4.5000E+00	4.1667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.5648E+00	4.9997E+00	4.5765E+00	4.7137E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.0249E+04	1.0209E+04	1.0469E+04	1.0309E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	7.4905E-02	8.2066E-02	9.0142E-02	8.2371E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	1.6817E+02	1.6756E+02	2.0620E+02	1.8064E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke78.xls
Ref. No.: 78
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 13 Battery Combustion Stack
Test date: 7/28-29/94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	496	498	495	496.3
	Pressure	in. Hg	29.23	29.23	29.32	29.3
	Moisture	%	15.5	16.6	16.2	16.1
	Oxygen	%	10.5	10.5	10.5	10.5
	Gas volume sampled	dscf	70.92	70.52	69.05	70.16
	Vol. flow, actual	acfm	73,700	73,900	73,500	73,700
	Vol. flow, standard*	dscfm	33,602	33,185	33,371	33,386
	Isokinetic variation	%	105.4	106.2	103.4	105.0
	Process rate (specify units)	tons/hr	48.8	56.3	61.9	55.7
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	5.4400E-02	4.8800E-02	0.0565	5.3233E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.18E-02	1.07E-02	1.26E-02	1.17E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	6.00E+00	6.00E+00	6.50E+00	6.17E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.41E+00	3.04E+00	3.61E+00	3.35E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.38E+04	1.36E+04	1.49E+04	1.41E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	6.99E-02	5.39E-02	5.83E-02	6.07E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	2.83E+02	2.42E+02	2.40E+02	2.55E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC011~~ coke80.xls
Ref. No.: 80
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 19 Battery Combustion Stack
Source: Test 1 -3
Test date: 24-Aug-94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	482	487	490	486.3
	Pressure	in. Hg	29.51	29.51	29.51	29.5
	Moisture	%	14.6	14.5	14.5	14.5
	Oxygen	%	12.0	12.0	12.0	12.0
	Gas volume sampled	dscf	62.58	61.19	63.59	62.46
	Vol. flow, actual	acfm	151,700	152,100	152,300	152,033
	Vol. flow, standard*	dscfm	71,620	71,513	71,381	71,505
	Isokinetic variation	%	104.8	102.8	107.0	104.9
	Process rate (specify units)	tons/hr	62.0	62.0	74.6	66.2
Indicate basis for process rate (feed or production):		coke produced				
	Pollutant mass:					
	Filterable PM	grams	5.3900E-02	5.2300E-02	6.8000E-02	5.8067E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.013290033	0.013187819	0.016499041	5.8067E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.0000E+00	4.0000E+00	4.0000E+00	4.0000E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	8.1586E+00	8.0838E+00	1.0095E+01	8.7790E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	1.9629E+04	1.9600E+04	1.9564E+04	1.9597E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.3169E-01	1.3048E-01	1.3538E-01	1.3252E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	3.1684E+02	3.1636E+02	2.6237E+02	2.9852E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke81.xls
Ref. No.: 81
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: Clairton, PA
Source: # 20 Battery Combustion Stack
Test date: 21-Sep-94

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	490	484	481	485.0
	Pressure	in. Hg	29.58	29.58	29.58	29.6
	Moisture	%	15.4	14.8	14.9	15.0
	Oxygen	%	10.5	10.5	10.5	10.5
	Gas volume sampled	dscf	69.22	66.22	66.10	67.18
	Vol. flow, actual	acfm	176,500	175,700	175,400	175,867
	Vol. flow, standard*	dscfm	82,047	82,777	82,802	82,542
	Isokinetic variation	%	101.9	96.6	96.4	98.3
	Process rate (specify units)	tons/hr	74.6	81.3	78.9	78.3
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	4.850E-02	4.440E-02	4.020E-02	4.437E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.081E-02	1.035E-02	9.384E-03	4.437E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	4.50E+00	4.50E+00	4.50E+00	4.50E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	7.60E+00	7.34E+00	6.66E+00	7.20E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	2.53E+04	2.55E+04	2.55E+04	2.55E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.02E-01	9.02E-02	8.44E-02	9.22E-02
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	3.39E+02	3.14E+02	3.23E+02	3.25E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: ~~PAAC001~~ coke82.xls
Ref. No.: 82
Date: 13-Aug-97
Reviewer: A Saltis

Facility: USS Clairton
Location: # 3 Battery Combustion Stack
Source: Test 1 -3
Test date: 1-Aug-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	541	545	539	541.7
	Pressure	in. Hg	29.4	29.4	29.4	29.4
	Moisture	%	14.2	14.1	13.4	13.9
	Oxygen	%	12.5	13.0	12.0	12.5
	Gas volume sampled	dscf	75.61	79.82	88.58	81.34
	Vol. flow, actual	acfm	80,021	84,075	91,948	85,348
	Vol. flow, standard*	dscfm	35,602	37,266	41,373	38,080
	Isokinetic variation	%	92.3	93.2	93.1	92.9
	Process rate (specify units)	tons/hr	35.5	34.2	36.1	35.3
Indicate basis for process rate (feed or production):		Coke produced				
	Pollutant mass:					
	Filterable PM	grams	5.4900E-02	5.0200E-02	8.2400E-02	6.2500E-02
	Condensable inorg. PM	grams				
	Condensable org. PM	grams				
	Total condensable PM	grams				
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.1203E-02	9.7043E-03	1.4353E-02	1.1754E-02
	Condensable inorg. PM	gr/dscf	0	0	0	0
	Condensable org. PM	gr/dscf	0	0	0	0
	Total condensable PM	gr/dscf	0	0	0	0
	CO2	% vol.	3.8000E+00	3.8000E+00	4.0000E+00	3.8667E+00
	CO	ppmdv				
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.4188E+00	3.0998E+00	5.0900E+00	3.8695E+00
	Condensable inorg. PM	lb/hr	0	0	0	0
	Condensable org. PM	lb/hr	0	0	0	0
	Total condensable PM	lb/hr	0	0	0	0
	CO2	lb/hr	9.2697E+03	9.7029E+03	1.1339E+04	1.0104E+04
	CO	lb/hr	0	0	0	0
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	9.6200E-02	9.0577E-02	1.4102E-01	1.0927E-01
	Condensable inorg. PM	lb/unit	0	0	0	0
	Condensable org. PM	lb/unit	0	0	0	0
	Total condensable PM	lb/unit	0	0	0	0
	CO2	lb/unit	2.6084E+02	2.8353E+02	3.1416E+02	2.8617E+02
	CO	lb/unit	0	0	0	0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE84.XLS
Ref. No.: 84
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERIES C STACK W/FF
Test date: 4/15-17/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	323	336	333	330.7
BATT C	Pressure	in. Hg	28.37	28.43	28.45	28.4
combust. sta	Moisture	%	7.7	8.0	10.7	8.8
W/FF	Oxygen	%	14.3	14.8	14.4	14.5
METHOD 5	Gas volume sampled	dscf	43.67	69.92	71.80	61.80
COG	Vol. flow, actual	acfm	68,340	63,636	67,635	66,537
	Vol. flow, standard*	dscfm	40,353	36,909	38,261	38,508
	Isokinetic variation	%	99.7	97.1	96.2	97.7
	Process rate (specify units)	tph	34.375	34.375	34.375	34.375
Indicate basis for process rate (feed or production coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0381	0.0697	0.0862	6.47E-02
	Condensable inorg. PM	grams	0.0193	0.243	0.406	2.23E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.013461942	0.01538145	0.0185246	1.58E-02
	Condensable inorg. PM	gr/dscf	0.006819304	0.053625429	0.08725042	4.92E-02
	CO2	% vol.	4.2	3.4	4.9	4.14E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.66E+00	4.87E+00	6.08E+00	5.20E+00
	Condensable inorg. PM	lb/hr	2.36E+00	1.70E+01	2.86E+01	1.60E+01
	CO2	lb/hr	1.15E+04	8.55E+03	1.28E+04	1.09E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.35E-01	1.42E-01	1.77E-01	1.51E-01
	Condensable inorg. PM	lb/unit	6.86E-02	4.94E-01	8.32E-01	4.65E-01
	CO2	lb/unit	3.35E+02	2.49E+02	3.71E+02	3.18E+02

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE84.XLS
Ref. No.: 84
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY E COMB. STACK W/FF
Test date: 4/15-17/80

Emission Data/Mass Flux Rates/Emission Factors

2	Stack temperature	Deg F	386	398	403	395.7
BATT E	Pressure	in. Hg	28.41	28.47	28.49	28.5
combust. sta	Moisture	%	9.1	9.3	9.5	9.3
w/FF	Oxygen	%	16.7	14.3	13.1	14.7
METHOD 5	Gas volume sampled	dscf	77.28	77.72	81.26	78.75
COG	Vol. flow, actual	acfm	67,116	70,192	73,971	70,426
	Vol. flow, standard*	dscfm	36,146	37,270	39,010	37,475
	Isokinetic variation	%	104.6	102.0	101.9	102.8
	Process rate (specify units)	tph	34.375	34.375	34.375	34.375
Indicate basis for process rate (feed or production coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.253	0.289		2.71E-01
	Condensable inorg. PM	grams	1.16	0.0283	0.0334	4.07E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.050517496	0.057376094		5.39E-02
	Condensable inorg. PM	gr/dscf	0.23162172	0.005618489	0.00634214	8.12E-02
	CO2	% vol.	2.2	3.8	4.8	3.58E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.57E+01	1.83E+01		1.70E+01
	Condensable inorg. PM	lb/hr	7.18E+01	1.79E+00	2.12E+00	2.52E+01
	Total condensable PM	lb/hr	#REF!	#REF!	#REF!	#REF!
	CO2	lb/hr	5.32E+03	9.76E+03	1.27E+04	9.28E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	4.55E-01	5.33E-01		4.94E-01
	Condensable inorg. PM	lb/ton	2.09E+00	5.22E-02	6.17E-02	7.34E-01
	Total condensable PM	lb/ton	#REF!	#REF!	#REF!	#REF!
	CO2	lb/ton	1.55E+02	2.84E+02	3.71E+02	2.70E+02

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE85.XLS
Ref. No.: 85
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY E STACK W/FF
Test date: 2/12-13/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	332	331	331	331.3
BATT E	Pressure	in. Hg	28.3	28.26	28.26	28.3
combust. sta	Moisture	%	7.8	7.7	9.1	8.2
w/FF	Oxygen	%	11.0	11.1	9.6	10.6
METHOD 5	Gas volume sampled	dscf	48.98	46.60	45.42	47.00
BFG	Vol. flow, actual	acfm	88,757	85,536	82,187	85,493
	Vol. flow, standard*	dscfm	50,820	49,022	46,388	48,743
	Isokinetic variation	%	101.1	99.8	102.8	101.2
	Process rate (specify units)	tph	40.65	53.33	40.00	44.6594982
Indicate basis for process rate (feed or production coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0036	0.0019	0.0037	3.07E-03
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.001134096	0.00062912	0.00125696	1.01E-03
	CO2	% vol.	15.0	14.9	15.3	1.50E+01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.94E-01	2.64E-01	5.00E-01	4.19E-01
	CO2	lb/hr	5.21E+04	4.99E+04	4.85E+04	5.01E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.22E-02	4.96E-03	1.25E-02	9.87E-03
	CO2	lb/unit	1.28E+03	9.35E+02	1.21E+03	1.14E+03

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE86.XLS
Ref. No.: 86
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY C STACK W/FF
Test date: 3/26-27/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	303	294	291	296.0
BATT C	Pressure	in. Hg	28.32	28.39	28.23	28.3
combust. sta	Moisture	%	9.3	10.4	9.9	9.9
w/FF	Oxygen	%	15.6	15.4	15.5	15.5
METHOD 5	Gas volume sampled	dscf	37.77	38.08	37.58	37.81
COG	Vol. flow, actual	acfm	63,041	63,313	63,313	63,222
	Vol. flow, standard*	dscfm	36,884	37,122	37,268	37,091
	Isokinetic variation	%	103.3	103.4	101.7	102.8
	Process rate (specify units)	tph	55.08	53.33	52.50	53.64
Indicate basis for process rate: COAL CHARGED			coal charged			
	Pollutant mass:					
	Filterable PM	grams	0.0144	0.0138	0.0114	1.32E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	5.88E-03	5.59E-03	4.68E-03	5.39E-03
	CO2	% vol.	6.0	5.1	4.5	5.21E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.86E+00	1.78E+00	1.50E+00	1.71E+00
	CO2	lb/hr	1.51E+04	1.30E+04	1.15E+04	1.32E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	3.38E-02	3.34E-02	2.85E-02	3.19E-02
	CO2	lb/unit	2.75E+02	2.45E+02	2.20E+02	2.46E+02

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE87.XLS
Ref. No.: 87
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY B STACK W/FF
Test date: 7/26-27/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	415	407	NO DATA	274.0
BATT B	Pressure	in. Hg	28.18	28.1		28.1
combust. sta	Moisture	%	10.7	11.2		11.0
w/FF	Oxygen	%	16.0	15.4		15.7
METHOD 5	Gas volume sampled	dscf	32.98	35.97		34.48
COG	Vol. flow, actual	acfm	69,044	79,219		74,132
	Vol. flow, standard*	dscfm	34,511	39,625		37,068
	Isokinetic variation	%	96.4	91.5		94.0
	Process rate (specify units)	tph	17.5	17.5	17.5	17.5
Indicate basis for process rate: COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.0202	0.0277		2.40E-02
	Condensable inorg. PM	grams	0.0194	0.0335		2.65E-02
	Condensable org. PM	grams	0.0005	0.0036		2.05E-03
	Total condensable PM	grams	0.0199	0.0371	0	0.019
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00945	0.0119		1.07E-02
	Condensable inorg. PM	gr/dscf	0.00908	0.0144		1.17E-02
	Condensable org. PM	gr/dscf	0.000234	0.00154		8.89E-04
	Total condensable PM	gr/dscf	0.00931	0.0159		1.26E-02
	CO2	% vol.	4.6	5.0		4.76E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.80E+00	4.04E+00		3.42E+00
	Condensable inorg. PM	lb/hr	2.68E+00	4.88E+00		3.78E+00
	Condensable org. PM	lb/hr	6.92E-02	5.25E-01		2.97E-01
	Total condensable PM	lb/hr	2.75E+00	5.41E+00		4.08E+00
	CO2	lb/hr	1.08E+04	1.35E+04		1.21E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.60E-01	2.31E-01		1.95E-01
	Condensable inorg. PM	lb/unit	1.53E-01	2.79E-01		2.16E-01
	Condensable org. PM	lb/unit	3.95E-03	3.00E-02		1.70E-02
	Total condensable PM	lb/unit	1.57E-01	3.09E-01		2.33E-01
	CO2	lb/unit	6.15E+02	7.70E+02		6.92E+02

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE88.XLS
Ref. No.: 88
Date: 01-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY D STACK W/FF
Test date: 11/27-28/78

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	402	400	414	405.3
BATT D	Pressure	in. Hg	27.79	27.76	27.76	27.8
combust. stack	Moisture	%	9.9	10.0	9.5	9.8
w/FF	Oxygen	%	12.6	12.9	14.4	13.3
METHOD 5	Gas volume sampled	dscf	35.50	35.20	36.70	35.80
COG	Vol. flow, actual	acfm	69,480	68,640	72,840	70,320
	Vol. flow, standard*	dscfm	35,076	34,656	36,389	35,374
	Isokinetic variation	%	98.9	99.3	98.6	98.9
	Process rate (specify units)	tph	59.56	64.29	63.28	62.38
Indicate basis for process rate: COAL CHARGED						
	Pollutant mass:					
	Filterable PM	grams	0.021	0.0228	0.0183	2.07E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00913	0.00999	0.00769	0.00894
	CO2	% vol.	5.3	4.3	3.8	4.47E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.74E+00	2.97E+00	2.40E+00	2.70E+00
	CO2	lb/hr	1.27E+04	1.02E+04	9.47E+03	1.08E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	4.61E-02	4.62E-02	3.79E-02	4.34E-02
	CO2	lb/unit	2.14E+02	1.59E+02	1.50E+02	1.74E+02

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE89.XLS
Ref. No.: 89
Date: 02-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY B STACK W/FF-PM RESULTS
Test date: 9/17&22/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Run 1	Run 2	Run 3	Run 4	AVERAGE
1	Stack temperature	Deg F	442	443	443	444	443.0
BATT B	Pressure	in. Hg	27.96	27.96	28.12	28.09	28.0
combust. sta	Moisture	%	9.0	2.1	7.5	6.9	6.4
w/FF-PM resu	Oxygen	%	13.3	15.1	12.0	12.1	13.1
METHOD 5	Gas volume sampled	dscf	70.19	72.06	70.08	67.69	70.00
COG	Vol. flow, actual	acfm	73,230	71,811	72,343	70,723	72,027
	Vol. flow, standard*	dscfm	36,437	38,415	36,786	36,113	36,937
	Isokinetic variation	%	95.0	92.9	94.0	93.0	93.7
	Process rate (specify units)	tph	27.18	27.18	27.18	27.18	27.18
Indicate basis for process rate (feed or production coal charged							
	Pollutant mass:						
	Filterable PM	grams	0.1242	0.0179	0.1565	0.0619	9.01E-02
	Condensable inorg. PM	grams	0.00341	0.0067	0.0334	0.116	3.99E-02
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	0.02731	0.00383	0.03446	0.01411	0.01993
	Condensable inorg. PM	gr/dscf	0.000750	0.00143	0.00735	0.0264	0.00899
	Benzene	ppmdv	1.8	2.9	2.5	4.1	2.83E+00
	CO2	% vol.	3.8	3.0	4.4	4.5	3.91E+00
	CO	ppmdv	153.0	111.0	97.0	139.0	1.25E+02
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	8.53E+00	1.26E+00	1.09E+01	4.37E+00	6.26E+00
	Condensable inorg. PM	lb/hr	2.34E-01	4.72E-01	2.32E+00	8.18E+00	2.80E+00
	Benzene	lb/hr	7.97E-01	7.63E-01	6.30E-01	1.01E+00	8.01E-01
	CO2	lb/hr	9.49E+03	7.98E+03	1.10E+04	1.10E+04	9.87E+03
	CO	lb/hr	2.43E+01	1.86E+01	1.56E+01	2.19E+01	2.01E+01
	Emission factors (ENGLISH UNITS):						AVERAGE
	Filterable PM	lb/ton	3.14E-01	4.64E-02	4.00E-01	1.61E-01	2.30E-01
	Condensable inorg. PM	lb/ton	8.62E-03	1.74E-02	8.53E-02	3.01E-01	1.03E-01
	Benzene	lb/ton	2.93E-02	2.81E-02	2.32E-02	3.73E-02	2.95E-02
	CO2	lb/ton	3.49E+02	2.93E+02	4.03E+02	4.06E+02	3.63E+02
	CO	lb/ton	8.94E-01	6.84E-01	5.72E-01	8.05E-01	7.39E-01

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE89.XLS
Ref. No.: 89
Date: 02-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY B STACK NO CONTROLS-PM RESULTS
Test date: 9/17&22/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Run 1	Run 2	Run 3	Run 4	AVERAGE
1	Stack temperature	Deg F	482	495	480	444	475.3
BATT B	Pressure	in. Hg	28.44	28.6	28.57	28.09	28.4
combust. sta	Moisture	%	8.1	5.5	6.2	6.9	6.6
pre-controls	Oxygen	%	13.3	12.0	12.1	12.1	12.4
METHOD 5	Gas volume sampled	dscf	64.63	69.80	72.47	67.69	68.65
COG	Vol. flow, actual	acfm	72,040	70,569	71,702	70,723	71,259
	Vol. flow, standard*	dscfm	35,318	35,277	36,137	36,113	35,711
	Isokinetic variation	%	91.0	98.0	99.0	93.0	95.3
	Process rate (specify units)	tph	27.17647059	27.17647059	27.1764706	27.1764706	27.1764706
Indicate basis for process rate (feed or production coal charged							
	Pollutant mass:						
	Filterable PM	grams	0.4541	0.3218	0.253	0.0619	2.73E-01
	Condensable inorg. PM	grams	0.0047	0.052	0.0454	0.116	5.45E-02
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	0.108421865	0.071135125	0.05386916	0.01410954	6.19E-02
	Condensable inorg. PM	gr/dscf	0.001122182	0.0114948	0.00966664	0.02644114	1.22E-02
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	3.28E+01	2.15E+01	1.67E+01	4.37E+00	1.88E+01
	Condensable inorg. PM	lb/hr	3.40E-01	3.48E+00	2.99E+00	8.18E+00	3.75E+00
	Emission factors (ENGLISH UNITS):						AVERAGE
	Filterable PM	lb/ton	1.21E+00	7.91E-01	6.14E-01	1.61E-01	6.93E-01
	Condensable inorg. PM	lb/ton	1.25E-02	1.28E-01	1.10E-01	3.01E-01	1.38E-01

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE89.XLS
Ref. No.: 89
Date: 02-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY B STACK W/FF-BaP results
Test date: 9/17&22/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Run 1	Run 2	Run 3	Run 4	AVERAGE
1	Stack temperature	Deg F	440	441	443	441	441.3
BATT B	Pressure	in. Hg	27.96	27.96	28.12	28.01	28.0
combust. sta	Moisture	%	9.0	3.1	7.5	6.2	6.5
w/FF-BaP res	Oxygen	%	13.3	15.1	12.0	13.5	13.5
mod. METH 5	Gas volume sampled	dscf	66.63	72.86	71.00	70.17	70.16
COG	Vol. flow, actual	acfm	72,094	70,787	71,569	71,483	71,483
	Vol. flow, standard*	dscfm	35,951	37,563	36,392	36,785	36,673
	Isokinetic variation	%	92.0	96.0	97.0	95.0	95.0
	Process rate (specify units)	tph	27.17647059	27.17647059	27.1764706	27.1764706	27.1764706
Indicate basis for process rate (feed or production coal charged							
	Pollutant mass:						
	BaP Front half	grams	7.20E-06	6.54E-06	7.60E-06	7.11E-06	7.11E-06
	BaP Back half	grams	3.40E-06	1.32E-05	4.66E-06	7.07E-06	7.07E-06
	Total Back half BaP	grams	#REF!	#REF!	#REF!	#REF!	#REF!
	Pollutant concentrations:						AVERAGE
	BaP Front half	gr/dscf	1.67E-06	1.39E-06	1.65E-06	1.56E-06	1.57E-06
	BaP Back half	gr/dscf	7.87E-07	2.79E-06	1.01E-06	1.55E-06	1.54E-06
	Pollutant mass flux rates:						AVERAGE
	BaP Front half	lb/hr	5.14E-04	4.46E-04	5.15E-04	4.93E-04	4.92E-04
	BaP Back half	lb/hr	2.43E-04	8.97E-04	3.16E-04	4.90E-04	4.87E-04
	Emission factors (ENGLISH UNITS):						AVERAGE
	BaP Front half	lb/ton	1.89E-05	1.64E-05	1.90E-05	1.81E-05	1.81E-05
	BaP Back half	lb/ton	8.93E-06	3.30E-05	1.16E-05	1.80E-05	1.79E-05
	Total BaP	lb/ton	2.78E-05	4.94E-05	3.06E-05	3.62E-05	3.60E-05

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: COKE89.XLS
Ref. No.: 89
Date: 02-Dec-97
Reviewer: sjs

Facility: KAISER STEEL CORP.
Location: FONTANA, CA
Source: BATTERY B STACK no controls-BaP
Test date: 9/17&22/79

Emission Data/Mass Flux Rates/Emission Factors

			Values reported				
Test ID	Parameter	Units	Run 1	Run 2	Run 3	Run 4	AVERAGE
1	Stack temperature	Deg F	480	536	495	504	503.8
BATT B	Pressure	in. Hg	28.44	28.44	28.6	28.49	28.5
combust. sta	Moisture	%	8.1	9.1	5.5	7.6	7.6
no contr.-Ba	Oxygen	%	13.3	15.1	12.0	13.5	13.5
mod. METH 5	Gas volume sampled	dscf	72.48	66.25	62.40	67.05	67.05
COG	Vol. flow, actual	acfm	70,410	73,356	67,434	70,400	70,400
	Vol. flow, standard*	dscfm	34,563	33,593	33,682	33,941	33,945
	Isokinetic variation	%	104.0	98.0	93.0	98.0	98.3
	Process rate (specify units)	tph	27.17647059	27.17647059	27.1764706	27.1764706	27.1764706
Indicate basis for process rate (feed or production coal charged							
	Pollutant mass:						
	Front half BaP	grams	8.48E-06	1.50E-05	1.73E-05	1.36E-05	1.36E-05
	Back half BaP	grams	1.67E-06	2.05E-06	3.93E-06		2.55E-06
	Pollutant concentrations:						AVERAGE
	Front half BaP	gr/dscf	1.81E-06	3.49E-06	4.28E-06	3.13E-06	3.18E-06
	Back half BaP	gr/dscf	3.56E-07	4.77E-07	9.72E-07		6.02E-07
	Pollutant mass flux rates:						AVERAGE
	Front half BaP	lb/hr	5.35E-04	1.01E-03	1.24E-03	9.10E-04	9.21E-04
	Back half BaP	lb/hr	1.05E-04	1.37E-04	2.81E-04	0.00E+00	1.31E-04
	Emission factors (ENGLISH UNITS):						AVERAGE
	Front half BaP	lb/ton	1.97E-05	3.70E-05	4.54E-05	3.35E-05	3.39E-05
	Back half BaP	lb/ton	3.88E-06	5.06E-06	1.03E-05	0.00E+00	4.81E-06
	Total Back half BaP	lb/ton	2.36E-05	4.20E-05	5.58E-05	3.35E-05	3.87E-05

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:Coke Production

Filename: coke91.xls
Ref. No.: 91
Date: 18-Aug-97
Reviewer: bls

Facility: Rouge Steel Co.
Location: Michigan
Source: Coke oven combustion stack
Test date: 29-Nov-82
week of

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	AVERAGE
1	Stack temperature	Deg F	420	419	420	428	426	430	423.8
	Pressure	in. Hg	29.3	29.27	29.27	29.35	29.35	29.43	29.3
	Moisture	%	6.6	7.8	7.7	7.9	7.9	7.9	7.6
	Oxygen	%							#DIV/0!
	Gas volume sampled	dscf	47.74	49.10	45.90	48.61	50.28	49.86	48.6
	Vol. flow, actual	acfm	106,000	117,000	101,000	110,000	111,000	111,000	109333.3
	Vol. flow, standard*	dscfm	58,171	63,390	54,719	59,091	59,763	59,656	59131.7
	Isokinetic variation	%	96.5	90.4	98.2	95.5	98.1	97.5	96.0
	Process rate (specify units)	tph	76.8	55.2	39.3	97.4	43.7	90.3	67.1
Indicate basis for process rate (feed or production): coal charged									
	Pollutant mass:								
	Filterable PM	grams	0.0779	0.1151	0.081	0.0612	0.077	0.0994	0.1
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.025180095	0.036170937	0.02722941	0.01942637	0.02362987	0.03076344	0.0
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	1.26E+01	1.97E+01	1.28E+01	9.84E+00	1.21E+01	1.57E+01	13.8
	Emission factors (ENGLISH UNITS): based on average process rate from all 6 tests								AVERAGE
	Filterable PM	lb/unit	0.187	0.293	0.190	0.147	0.180	0.234	0.205

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke92.xls
Ref. No.: 92
Date: 18-Aug-97
Reviewer: bls

Facility: Republic Steel Corp.
Location: Warren, Ohio
Source: Quench car system
Test date: Oct. 12-16, 1981

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	137	137	136	136.7
	Pressure	in. Hg	29.49	29.49	29.2	29.4
	Moisture	%	18.5	18.5	18.0	18.3
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	30.00	30.36	29.79	30.05
	Vol. flow, actual	acfm	116,560	112,990	116,402	115,317
	Vol. flow, standard*	dscfm	82,284	79,764	81,971	81,339
	Isokinetic variation	%	107.2	108.3	101.1	105.5
	Process rate (specify units)	tph	363.6	350.8	340.3	351.566667
Indicate basis for process rate (feed or production): tons coke quenched						
	Pollutant mass:					
	Filterable PM	grams	0.0707	0.0208	0.0235	3.83E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.036369428	0.010569885	0.01217122	1.97E-02
	CO2	% vol.	2.0	1.5	1.5	1.67E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.57E+01	7.23E+00	8.55E+00	1.38E+01
	CO2	lb/hr	1.13E+04	8.20E+03	8.42E+03	9.30E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	7.05E-02	2.06E-02	2.51E-02	3.88E-02
	CO2	lb/unit	3.10E+01	2.34E+01	2.48E+01	2.64E+01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke94.xls
Ref. No.: 94
Date: 19-Aug-97
Reviewer: bls

Facility: Republic Steel Corp.
Location: Warren, Ohio
Source: No. 2 One spot quench car
Test date: Oct. 19-23, 1981

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	148	130.2	135.8	138.0
	Pressure	in. Hg	29.2	29.2	29.2	29.2
	Moisture	%	20.1	15.4	17.9	17.8
	Oxygen	%	17.5	17.5	18.0	17.7
	Gas volume sampled	dscf	27.63	24.90	25.03	25.85
	Vol. flow, actual	acfm	126,469	124,610	126,798	125,959
	Vol. flow, standard*	dscfm	85,641	92,040	90,035	89,239
	Isokinetic variation	%	105.8	101.3	99.8	102.3
	Process rate (specify units)	tph	417.5	438.6	435.4	430.5
Indicate basis for process rate (feed or production):			tons coke quenched			
	Pollutant mass:					
	Filterable PM	grams	0.0264	0.0245	0.0228	2.46E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0147	0.0152	0.0141	1.47E-02
	CO2	% vol.	0.5	0.5	1.0	6.67E-01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.08E+01	1.20E+01	1.08E+01	1.12E+01
	CO2	lb/hr	2.93E+03	3.15E+03	6.17E+03	4.09E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.59E-02	2.73E-02	2.49E-02	2.60E-02
	CO2	lb/unit	7.03E+00	7.19E+00	1.42E+01	9.46E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke95.xls
Ref. No.: 95
Date: 19-Aug-97
Reviewer: bls

Facility: Republic Steel Corp.
Location: Youngstown, Ohio
Source: One spot quench car
Test date: Oct. 27-29, 1981

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	147	139	137	141.0
	Pressure	in. Hg	29.25	29.58	29.72	29.5
	Moisture	%	21.2	19.5	18.5	19.7
	Oxygen	%	18.5	18.5	18.5	18.5
	Gas volume sampled	dscf	34.76	35.59	36.80	35.72
	Vol. flow, actual	acfm	116,134	107,439	101,433	108,335
	Vol. flow, standard*	dscfm	77,821	75,370	72,624	75,272
	Isokinetic variation	%	103.5	100.6	101.1	101.7
	Process rate (specify units)	tph	269.02	244.83	227.23	247.03
Indicate basis for process rate (feed or production):			tons coke quenched			
	Pollutant mass:					
	Filterable PM	grams	0.0336	0.027	0.0255	2.87E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0149	0.0117	0.0107	1.24E-02
	CO2	% vol.	1.5	1.5	1.5	1.50E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	9.95E+00	7.56E+00	6.66E+00	8.06E+00
	CO2	lb/hr	8.00E+03	7.75E+03	7.46E+03	7.74E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	3.70E-02	3.09E-02	2.93E-02	3.24E-02
	CO2	lb/unit	2.97E+01	3.16E+01	3.28E+01	3.14E+01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke96.xls
Ref. No.: 96
Date: 19-Aug-97
Reviewer: bls

Facility: Republic Steel Corp.
Location: Cleveland, Ohio
Source: No. 21 One spot quench car
Test date: April 7-9, 1981

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	127	137	119	127.7
	Pressure	in. Hg	30.3	30.35	30.35	30.3
	Moisture	%	25.1	26.9	24.6	25.5
	Oxygen	%	20.0	20.0	21.0	20.3
	Gas volume sampled	dscf	26.10	23.60	22.71	24.14
	Vol. flow, actual	acfm	96,043	88,122	88,908	91,024
	Vol. flow, standard*	dscfm	65,489	57,771	62,030	61,763
	Isokinetic variation	%	108.4	110.6	109.5	109.5
	Process rate (specify units)	tph	296.6	295.7	326.3	306.20
Indicate basis for process rate (feed or production):		tons coke quenched				
	Pollutant mass:					
	Filterable PM	grams	0.0236	0.0288	0.0249	2.58E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0140	0.0188	0.0169	1.66E-02
	CO2	% vol.	0.5	1.5	0.5	8.33E-01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	7.83E+00	9.32E+00	9.00E+00	8.72E+00
	CO2	lb/hr	2.24E+03	5.94E+03	2.13E+03	3.44E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.64E-02	3.15E-02	2.76E-02	2.85E-02
	CO2	lb/unit	7.56E+00	2.01E+01	6.51E+00	1.14E+01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke97.xls
Ref. No.: 97
Date: 19-Aug-97
Reviewer: bls

Facility: Republic Steel Corp.
Location: Cleveland, Ohio
Source: No. 22 One spot quench car
Test date: April 14-15, 1981

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	149	119.6	127	131.9
	Pressure	in. Hg	29.64	30.3	30.3	30.1
	Moisture	%	26.0	23.3	24.3	24.6
	Oxygen	%	20.0	20.0	20.0	20.0
	Gas volume sampled	dscf	23.27	25.26	24.20	24.24
	Vol. flow, actual	acfm	100,414	97,483	97,836	98,578
	Vol. flow, standard*	dscfm	63,793	68,973	67,446	66,737
	Isokinetic variation	%	111.9	104.1	106.2	107.4
	Process rate (specify units)	tph	334.6	310.4	323.2	322.73
Indicate basis for process rate (feed or production):		tons coke quenched				
	Pollutant mass:					
	Filterable PM	grams	0.0187	0.0181	0.0242	2.03E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0124	0.0111	0.0154	1.30E-02
	CO2	% vol.	0.5	0.5	0.5	5.00E-01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.78E+00	6.54E+00	8.92E+00	7.41E+00
	CO2	lb/hr	2.19E+03	2.36E+03	2.31E+03	2.29E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.03E-02	2.11E-02	2.76E-02	2.30E-02
	CO2	lb/unit	6.53E+00	7.61E+00	7.15E+00	7.10E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: coke production

Filename: coke98.xls
Ref. No.: 98
Date: 11-Dec-97
Reviewer: bls

Facility: Republic Steel
Location: Cleveland, OH
Source: Battery No. 1 Combustion stack
Test date: 10/26/81 through 12/7/81

NCOG test--IF TEST RUNS CONDUCTED AT DIFFERENT FILTER TEMP., ONLY DATA FOR 250 DEG FILTER ARE USED IN AVERAGE

		Run 1-1	Run 2-1	Run 3-1	Run 4-1	Run 5-1	Run 6-1	Run 7-1	Run 8-1		
Flow rate	dscfh	1718626	1489327	1680373	1592304	1628613	1529041	1636079	1604520		
Filt. PM	gr/dscf	0.056	0.05	0.05	0.062	0.037	0.049	0.05	0.018		
SO2	gr/dscf	0.486	0.377	0.446	0.577	0.55	0.532				
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	13.7	10.6	12.0	14.1	8.6	10.7	11.7	4.1		
SO2	lb/hr	119.3	80.2	107.1	131.3	128.0	116.2				
CO2	lb/hr	20607.5	17858.0	20916.3	20002.0	21016.0	18334.2	20551.8	17040.5		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	252	247	236	254	255	246	252	332	AVERAGE	
Filt. PM	lb/ton	0.155	0.576	0.343	0.242	0.183	0.207	0.265	0.138		0.281
SO2	lb/ton	1.34	4.34	3.06	2.26	2.72	2.24				2.66
CO2	lb/ton	232	966	597	344	446	354	466	571		486

		Run 1-2	Run 2-2	Run 3-2	Run 4-2	Run 5-2	Run 6-2	Run 7-2	Run 8-2		
Flow rate	dscfh	1698840	1492594	1689592	1601155	1698186	1520006	1633313	1595254		
Filt. PM	gr/dscf	0.05	0.044	0.041	0.056	0.054	0.043	0.049	0.022		
C.I. PM	gr/dscf					0.006	0.031				
C.O. PM	gr/dscf					0.001	0.001				
SO2	gr/dscf	0.484	0.502	0.406	0.584						
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	12.1	9.4	9.9	12.8	13.1	9.3	11.4	5.0		
C.I. PM	lb/hr					1.5	6.7				
C.O. PM	lb/hr					0.2	0.2				
SO2	lb/hr	117.5	107.0	98.0	133.6						
CO2	lb/hr	20370.2	17897.2	21031.1	20113.1	21913.8	18225.9	20517.1	16942.1		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	257	263	260	266	254	258	258	336	AVERAGE	
Filt. PM	lb/ton	0.137	0.508	0.282	0.220	0.278	0.180	0.259	0.168		0.266
C.I. PM	lb/ton					0.0309	0.130				0.0804
C.O. PM	lb/ton					0.00515	0.00419				0.00467
SO2	lb/ton	1.32	5.79	2.80	2.30						3.05
CO2	lb/ton	229	968	600	346	465	352	466	568		489

		Run 1-3	Run 2-3	Run 3-3	Run 4-3	Run 5-3	Run 6-3	Run 7-3	Run 8-3		
Flow rate	dscfh	1665014	1493373	1633571	1592934	1611199	1536556	1573041	1626862		
Filt. PM	gr/dscf	0.019	0.014	0.023	0.028	0.014	0.01	0.019	0.017		
SO2	gr/dscf	0.487	0.509	0.45	0.585	0.564	0.546				
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	4.5	3.0	5.4	6.4	3.2	2.2	4.3	4.0		
SO2	lb/hr	115.8	108.6	105.0	133.1	129.8	119.9				
CO2	lb/hr	19964.6	17906.5	20333.8	20009.9	20791.3	18424.3	19760.0	17277.8		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	338	389	353	350	345	379	358	388	AVERAGE	
Filt. PM	lb/ton	0.0509	0.162	0.153	0.109	0.0684	0.0424	0.0969	0.132		0.102
SO2	lb/ton	1.30	5.88	3.00	2.29	2.76	2.31				2.92
CO2	lb/ton	225	969	580	344	442	356	448	579		493

		Run 1-4	Run 2-4	Run 3-4	Run 4-4	Run 5-4	Run 6-4	Run 7-4	Run 8-4		
Flow rate	dscfh	1716865	1499060	1674132	1564464	1608375	1500961	1630107	1612867		
Filt. PM	gr/dscf	0.013	0.019	0.011	0.04	0.01	0.009	0.017	0.016		
C.I. PM	gr/dscf					0.031	0.04				
C.O. PM	gr/dscf					0.001	0.002				
SO2	gr/dscf	0.482	0.489	0.448	0.596						
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	3.2	4.1	2.6	8.9	2.3	1.9	4.0	3.7		
C.I. PM	lb/hr					7.1	8.6				
C.O. PM	lb/hr					0.2	0.4				
SO2	lb/hr	118.2	104.7	107.1	133.2						
CO2	lb/hr	20586.3	17974.7	20838.7	19652.2	20754.8	17997.5	20577.3	17129.1		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	336	404	336	337	366	407	353	393	AVERAGE	
Filt. PM	lb/ton	0.0359	0.220	0.0751	0.154	0.0488	0.0372	0.0903	0.123		0.0981
C.I. PM	lb/ton					0.151	0.166				0.158
C.O. PM	lb/ton					0.00488	0.00828				0.00658
SO2	lb/ton	1.33	5.67	3.06	2.29						3.09
CO2	lb/ton	232	972	595	338	441	347	467	574		496

		Run 1-5	Run 2-5	Run 3-5	Run 4-5	Run 5-5	Run 6-5	Run 7-5	Run 8-5		
Flow rate	dscfh	1485228	1626567	1889290	1838631	1785009	1776813	1803803	1789295		
Filt. PM	gr/dscf	0.041	0.026	0.043	0.035	0.06	0.052	0.01	0.056		
C.I. PM	gr/dscf	0.008	0.02	0.025	0.013	0.006	0.005				
C.O. PM	gr/dscf	0.001	0.001	0.001	0.0001	0.002	0.002				
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	8.7	6.0	11.6	9.2	15.3	13.2	2.6	14.3		
C.I. PM	lb/hr	1.7	4.6	6.7	3.4	1.5	1.3				
C.O. PM	lb/hr	0.2	0.2	0.3	0.0	0.5	0.5				
CO2	lb/hr	17808.9	19503.6	23516.8	23096.2	23034.2	21305.2	22658.7	19002.8		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	263	257	229	266	240	246	385	268	AVERAGE	
Filt. PM	lb/ton	0.0979	0.327	0.331	0.158	0.325	0.255	0.0585	0.479		0.281882501
C.I. PM	lb/ton	0.0191	0.251	0.193	0.0587	0.0325	0.0245				0.0965
C.O. PM	lb/ton	0.00239	0.0126	0.00770	0.000451	0.0108	0.00980				0.00729
CO2	lb/ton	200	1055	671	397	489	411	514	637		547

		Run 1-6	Run 2-6	Run 3-6	Run 4-6	Run 5-6	Run 6-6	Run 7-6	Run 8-6		
Flow rate	dscfh	1647806	1668717	1790217	1860026	1796847	1777953	1806240	1771103		
Filt. PM	gr/dscf	0.008	0.01	0.008	0.027	0.007	0.008	0.007	0.017		
SO2	gr/dscf	0.346	0.512	0.408	0.611	0.581	0.555				
CO2	% vol	10.5	10.5	10.9	11	11.3	10.5	11	9.3		
Filt. PM	lb/hr	1.9	2.4	2.0	7.2	1.8	2.0	1.8	4.3		
SO2	lb/hr	81.4	122.1	104.3	162.4	149.1	141.0				
CO2	lb/hr	19758.3	20009.0	22283.6	23365.0	23186.9	21318.8	22689.3	18809.6		
Process rate	tons coal charged/hr	88.84	18.48	35.04	58.19	47.08	51.82	44.06	29.85		
Filter temp.	deg. F	608	600	560	622	616	576	587	596	AVERAGE	
Filt. PM	lb/ton	0.0212	0.129	0.0584	0.123	0.0382	0.0392	0.0410	0.144		0.0743
SO2	lb/ton	0.917	6.60	2.98	2.79	3.17	2.72				3.20
CO2	lb/ton	222	1083	636	402	493	411	515	630		549

VOID w/ 299°F filter temp.

DCOG test

		Run 1-1	Run 2-1	Run 3-1	Run 4-1	Run 5-1	Run 6-1	AVERAGE
Flow rate	dscfh	1595142	1747391	1476086	1588494	1639024	1552508	
Filt. PM	gr/dscf	0.011	0.078	0.011	0.007	0.006	0.003	
SO2	gr/dscf	0.024	0.038	0.026	0.035	0.033	0.033	
CO2	% vol	4.5	4.3	4	3.7	3.7	5.1	
Filt. PM	lb/hr	2.5	19.5	2.3	1.6	1.4	0.7	
SO2	lb/hr	5.5	9.5	5.5	7.9	7.7	7.3	
CO2	lb/hr	8197.2	8580.5	6742.6	6711.8	6925.3	9041.9	
Process rate	tons coal charged/hr	68.85	52.91	26.67	20.16	25.45	34.43	
Filter temp.	deg. F	246	244	248	299	253	270	
Filt. PM	lb/ton	0.0364	0.368	0.0870	~~0.0798~~	0.0552	0.0193	~~0.107~~ 0.113
SO2	lb/ton	0.0794	0.179	0.206	0.394	0.304	0.213	0.229
CO2	lb/ton	119	162	253	333	272	263	234

		Run 1-2	Run 2-2	Run 3-2	Run 4-2	Run 5-2	Run 6-2	AVERAGE
Flow rate	dscfh	1569507	1759182	1465237	1585451	1629300	1534002	
Filt. PM	gr/dscf	0.014	0.009	0.009	0.012	0.005	0.006	
C.I. PM	gr/dscf					0.019	0.015	
C.O. PM	gr/dscf					0.0002	0.0007	
SO2	gr/dscf	0.045	0.039	0.041	0.034			
CO2	% vol	4.5	4.3	4	3.7	3.7	5.1	
Filt. PM	lb/hr	3.1	2.3	1.9	2.7	1.2	1.3	
C.I. PM	lb/hr					4.4	3.3	
C.O. PM	lb/hr					0.0466	0.153	
SO2	lb/hr	10.1	9.8	8.6	7.7			
CO2	lb/hr	8065.5	8638.4	6693.0	6699.0	6884.2	8934.1	
Process rate	tons coal charged/hr	68.85	52.91	26.67	20.16	25.45	34.43	
Filter temp.	deg. F	272	229	270	259	261	248	
Filt. PM	lb/ton	0.0456	0.0427	0.0706	0.135	0.0457	0.0382	0.0630
C.I. PM	lb/ton					0.174	0.0955	0.135
C.O. PM	lb/ton					0.00183	0.00446	0.00314
SO2	lb/ton	0.147	0.185	0.322	0.382			0.259
CO2	lb/ton	117	163	251	332	270	260	232

		Run 1-3	Run 2-3	Run 3-3	Run 4-3	Run 5-3	Run 6-3	AVERAGE
Flow rate	dscfh	1579103	1763133	1477970	1575619	1634772	1548066	
Filt. PM	gr/dscf	0.013	0.009	0.01	0.007	0.004	0.005	
SO2	gr/dscf	0.044	0.04	0.041	0.035	0.035	0.034	
CO2	% vol	4.5	4.3	4	3.7	3.7	5.1	
Filt. PM	lb/hr	2.9	2.3	2.1	1.6	0.9	1.1	
SO2	lb/hr	9.9	10.1	8.7	7.9	8.2	7.5	
CO2	lb/hr	8114.8	8657.8	6751.2	6657.4	6907.4	9016.0	
Process rate	tons coal charged/hr	68.85	52.91	26.67	409.00	25.45	34.43	
Filter temp.	deg. F	374	363	411	333	357	399	
Filt. PM	lb/ton	0.0426	0.0428	0.0792	0.00385	0.0367	0.0321	
SO2	lb/ton	0.144	0.190	0.325	0.0193	0.321	0.218	0.203
CO2	lb/ton	118	164	253	16	271	262	181

		Run 1-4	Run 2-4	Run 3-4	Run 4-4	Run 5-4	Run 6-4	AVERAGE
Flow rate	dscfh	1586320	1767255	1489756	VOID	1627070	1542579	
Filt. PM	gr/dscf	0.017	0.009	0.012		0.005	0.004	
C.I. PM	gr/dscf					0.043	0.042	
C.O. PM	gr/dscf					0.001	0.0008	
SO2	gr/dscf	0.045	0.032	0.043				
CO2	% vol	4.5	4.3	4		3.7	5.1	
Filt. PM	lb/hr	3.9	2.3	2.6		1.2	0.9	
C.I. PM	lb/hr					10.0	9.3	
C.O. PM	lb/hr					0.2	0.2	
SO2	lb/hr	10.2	8.1	9.2				
CO2	lb/hr	8151.9	8678.0	6805.0		6874.8	8984.0	
Process rate	tons coal charged/hr	68.85	52.91	26.67		25.45	34.43	
Filter temp.	deg. F	333	387	400		351	427	
Filt. PM	lb/ton	0.0560	0.0429	0.0958		0.0457	0.0256	
C.I. PM	lb/ton					0.393	0.269	
C.O. PM	lb/ton					0.00913	0.00512	
SO2	lb/ton	0.148	0.153	0.343				0.215
CO2	lb/ton	118	164	255		270	261	214

		Run 1-5	Run 2-5	Run 3-5	Run 4-5	Run 5-5	Run 6-5	AVERAGE
Flow rate	dscfh	VOID	1680969	1666931	1620295	1585882	1565391	
Filt. PM	gr/dscf	VOID	0.01	0.008	0.008	0.004	0.005	
C.I. PM	gr/dscf		0.036	0.007	0.021	0.004	0.002	
C.O. PM	gr/dscf		0.0002	0.0005	0.0007	0.0004	0.0006	
CO2	% vol		4.3	4	3.7	3.7	5.1	
Filt. PM	lb/hr		2.4	1.9	1.9	0.9	1.1	
C.I. PM	lb/hr		8.6	1.7	4.9	0.9	0.4	
C.O. PM	lb/hr		0.0	0.1	0.2	0.1	0.1	
CO2	lb/hr		8254.3	7614.3	6846.2	6700.8	9116.9	
Process rate	tons coal charged/hr		52.91	26.67	20.16	25.45	34.43	
Filter temp.	deg. F		258	254	263	251	267	
Filt. PM	lb/ton		0.0454	0.0714	0.0919	0.0356	0.0325	0.0554
C.I. PM	lb/ton		0.163	0.0625	0.241	0.0356	0.0130	0.103
C.O. PM	lb/ton		0.000908	0.00446	0.00804	0.00356	0.00390	0.00417
CO2	lb/ton		156	286	340	263	265	262

		Run 1-6	Run 2-6	Run 3-6	Run 4-6	Run 5-6	Run 6-6	AVERAGE
Flow rate	dscfh	1393914	1687140	1640093	1628021	1610872	1567349	
Filt. PM	gr/dscf	0.012	0.008	0.006	0.004	0.003	0.003	
SO2	gr/dscf	0.044	0.04	0.043	0.024	0.035	0.033	
CO2	% vol	4.5	4.3	4	3.7	3.7	5.1	
Filt. PM	lb/hr	2.4	1.9	1.4	0.9	0.7	0.7	
SO2	lb/hr	8.8	9.6	10.1	5.6	8.1	7.4	
CO2	lb/hr	7163.1	8284.6	7491.7	6878.8	6806.4	9128.3	
Process rate	tons coal charged/hr	68.85	52.91	26.67	20.16	25.45	34.43	
Filter temp.	deg. F	515	569	536	617	600	607	
Filt. PM	lb/ton	0.0347	0.0364	0.0527	0.0461	0.0271	0.0195	
SO2	lb/ton	0.127	0.182	0.378	0.277	0.316	0.215	0.249
CO2	lb/ton	104	157	281	341	267	265	236

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

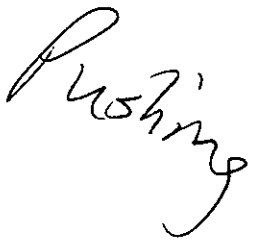
Filename: coke100.xls
Ref. No.: 100
Date: 26-Aug-97
Reviewer: bls

Facility: U.S. Steel
Location: Clairton, PA
Source: Hooded quench car No. 102 (Batt. 7,8,9)
Test date: Oct. 1-3, 1985

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1-push	Run 1-travel	Run 2-push	Run 2-travel	Run 3-push	Run 3-travel	AVERAGE
1	Stack temperature	Deg F	157	151	158	151	157	149	1.55E+02
	Pressure	in. Hg	29.29	29.29	29.38	29.38	29.31	29.31	2.93E+01
	Moisture	%	28.5	28.5	28.9	28.9	28.1	28.1	2.86E+01
	Oxygen	%	20.0	20.0	20.0	20.0	20.0	20.0	2.00E+01
	Gas volume sampled	dscf	18.11	10.55	19.93	12.20	20.18	13.33	1.62E+01
	Vol. flow, actual	acfm	122,945	67,640	141,011	78,639	135,726	87,527	1.09E+05
	Vol. flow, standard*	dscfm	73,600	40,890	84,148	47,465	81,865	53,486	6.56E+04
	Sampling time	min	15.70	15.60	15.87	14.25	15.98	15.05	
	Isokinetic variation	%	92.0	97.0	88.0	106.0	91.0	97.0	9.48E+01
	Process rate (specify units)	tons/test	264		264		264		2.64E+02
Indicate basis for process rate (feed or production): coke pushed									
	Pollutant mass:								
	Filterable PM	grams	0.06991		0.05778		0.03462		5.41E-02
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.0376		0.0277		0.0159		2.71E-02
	CO2	% vol.	0.8		0.8		0.8		8.00E-01
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	4.06E+00		3.69E+00		2.09E+00		3.28E+00
	CO2	lb/hr	6.89E+02		7.73E+02		8.12E+02		7.58E+02
	Emission factors (ENGLISH UNITS):								AVERAGE
	Filterable PM	lb/unit	3.65E-02		3.02E-02		1.82E-02		2.83E-02
	CO2	lb/unit	6.21E+00		6.96E+00		7.31E+00		6.83E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT



EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke101.xls
Ref. No.: 101
Date: 26-Aug-97
Reviewer: bls

Facility: U.S. Steel
Location: Clairton, PA
Source: Hooded quench car No. 105 Batt. 19
Test date: August 6, 13, 14, 1985

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1-push	Run 1-travel	Run 2-push	Run 2-travel	Run 3-push	Run 3-travel	AVERAGE
1	Stack temperature	Deg F	163	156	165	155	166	156	1.61E+02
	Pressure	in. Hg	29.28	29.28	29.26	29.26	29.24	29.24	2.93E+01
	Moisture	%	34.3	34.3	36.1	36.1	36.9	36.9	3.55E+01
	Oxygen	%	18.9	18.9	19.9	19.9	20.0	20.0	1.95E+01
	Gas volume sampled	dscf	24.71	2.71	25.99	2.50	27.86	1.99	1.68E+01
	Vol. flow, actual	acfm	135,331	104,668	143,309	110,931	145,401	116,292	1.28E+05
	Vol. flow, standard*	dscfm	73,765	57,682	75,691	59,515	75,686	61,468	6.85E+04
	Sampling time	min	20.45	2.75	21.15	2.50	21.40	2.07	
	Isokinetic variation	%	96.0	100.0	95.0	99.0	100.0	91.0	9.80E+01
	Process rate (specify units)	tph	348		348		348		3.48E+02
Indicate basis for process rate (feed or production): coke pushed									
	Pollutant mass:								
	Filterable PM	grams	0.11481		0.04052		0.03406		5.41E-02
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.0646		0.0219		0.0176		3.47E-02
	CO2	% vol.	1.9		0.9		0.8		1.20E+00
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	2.31E+00		8.68E-01		8.06E-01		1.33E+00
	CO2	lb/hr	5.43E+02		2.85E+02		2.93E+02		3.73E+02
	Emission factors (ENGLISH UNITS):								AVERAGE
	Filterable PM	lb/unit	4.42E-02		1.58E-02		1.26E-02		2.42E-02
	CO2	lb/unit	1.04E+01		5.17E+00		4.59E+00		6.72E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Pushing

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke102.xls
Ref. No.: 102
Date: 26-Aug-97
Reviewer: bls

Facility: U.S. Steel
Location: Clairton, PA
Source: Hooded quench car No. 101 (Batt. 7, 8, 9)
Test date: Sept. 12, 16, 18, 1985

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1-push	Run 1-travel	Run 2-push	Run 2-travel	Run 3-push	Run 3-travel	AVERAGE
1	Stack temperature	Deg F	160	151	161	151	160	152	
	Pressure	in. Hg	29.5	29.5	29.42	29.42	29.57	29.57	
	Moisture	%	29.6	29.6	29.0	29.0	29.5	29.5	
	Oxygen	%	20.2	20.2	20.0	20.0	20.0	20.0	
	Gas volume sampled	dscf	22.55	12.68	22.58	12.66	22.05	13.74	
	Vol. flow, actual	acfm	132,374	89,321	129,911	86,882	136,415	93,424	
	Vol. flow, standard*	dscfm	78,293	53,608	77,070	52,386	81,001	56,199	
	Sampling time	min	18.23	14.08	18.73	14.80	17.55	14.48	
	Isokinetic variation	%	93.0	98.0	92.0	96.0	91.0	99.0	
	Process rate (specify units)	tons/test	264		264		264		
Indicate basis for process rate (feed or production): coke pushed									
	Pollutant mass:								
	Filterable PM	grams	0.11696		0.04549		0.04471		6.91E-02
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.0512		0.0199		0.0193		3.01E-02
	CO2	% vol.	0.6		1.0		1.0		8.67E-01
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	5.99E+00		2.53E+00		2.46E+00		3.66E+00
	CO2	lb/hr	5.61E+02		1.01E+03		1.02E+03		8.65E+02
	Emission factors (ENGLISH UNITS):								AVERAGE
	Filterable PM	lb/unit	6.05E-02		2.39E-02		2.33E-02		3.59E-02
	CO2	lb/unit	5.66E+00		9.60E+00		9.67E+00		8.31E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke103.xls
Ref. No.: 103
Date: 28-Aug-97
Reviewer: bls

Facility: U.S. Steel
Location: Clairton, PA
Source: Hooded quench car No. 107 & 7 Batt. 20
Test date: ~~Sept. 12,16,18, 1985~~ 8/19-25/85

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1-push	Run 1-travel	Run 2-push	Run 2-travel	Run 3-push	Run 3-travel	AVERAGE
1	Stack temperature	Deg F	162	155	171	164	162	156	
	Pressure	in. Hg	29.21	29.21	29.34	29.34	29.35	29.35	
	Moisture	%	31.9	31.9	36.7	36.7	20.8	20.8	
	Oxygen	%	20.0	20.0	20.0	20.0	20.0	20.0	
	Gas volume sampled	dscf	23.72	14.46	20.10	12.47	23.24	16.45	
	Vol. flow, actual	acfm	124,170	86,874	98,197	78,859	130,080	84,250	
	Vol. flow, standard*	dscfm	70,118	49,616	51,044	41,452	85,755	56,083	
	Sampling time	min	21.05	16.77	21.65	16.77	19.15	18.58	
	Isokinetic variation	%	94.0	102.0	107.0	105.0	**83.0**	93.0	
	Process rate (specify units)	tons/test	348		348		348		
Indicate basis for process rate (feed or production): coke pushed									
	Pollutant mass:						**Run 3 void**		
	Filterable PM	grams	0.05825		0.03398				4.61E-02
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.0235		0.0161				1.98E-02
	CO2	% vol.	0.7		0.7				7.00E-01
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	1.23E+00		8.80E-01				1.05E+00
	CO2	lb/hr	2.92E+02		3.06E+02				2.99E+02
	Emission factors (ENGLISH UNITS):								AVERAGE
	Filterable PM	lb/unit	2.23E-02		1.19E-02				1.71E-02
	CO2	lb/unit	5.30E+00		4.14E+00				4.72E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Pushing

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: Coke Production

Filename: coke105.xls
Ref. No.: 105
Date: 28-Aug-97
Reviewer: bls

Facility: USSC Clairton
Location: Clairton, PA
Source: B Battery shed (baghouse)
Test date: July 30,31,August 1-3,6,1984

Pushing

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported														
			Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8	Module 9	Module 10	Module 11	Module 12	Module 13	Module 14	AVERAGE
1	Stack temperature	Deg F	108	105	107	114	107	114	112	109	109	109	104	109	116	112	
	Pressure	in. Hg	29.48	29.49	29.51	29.51	29.45	29.45	29.46	29.33		29.48	29.31	29.51			
	Moisture	%	2.0	2.2	1.4	1.9	2.8	2.1	2.0	2.6	2.8	2.8	3.2	2.8	2.2	2.3	
	Oxygen	%	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	
	Gas volume sampled	dscf	97.04	90.71	97.67	99.36	92.36	91.73	92.47	86.16		100.93	90.69	97.30			
	Vol. flow, actual	acfm	41,506	40,030	41,091	42,946	40,441	40,100	40,372	38,304		44,456	40,061	40,516			
	Vol. flow, standard*	dscfm	37,255	36,060	37,212	38,222	36,030	35,545	35,960	33,937	38,719	39,508	35,563	36,043	35,814	33,639	
	Isokinetic variation	%	106	105	109	106	105	105	107	104	106	106	106	104	106	107	
	Process rate	tph	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	91.74	
Indicate basis for process rate (feed or production):		tons coke pushed															
	Pollutant mass:																
	Filterable PM	grams	0.00538	0.01033	0.01308	0.00544	0.00494	0.00751	0.00937	0.00674		0.01533	0.01194	0.00679			
	Pollutant concentrations:																TOTAL
	Filterable PM	gr/dscf	0.000855429	0.001757159	0.00206641	0.00084483	0.00082533	0.00126332	0.00156349	0.00120711	0.00324	0.00234367	0.002031584	0.001076748	0.00165	0.00224	2.30E-02
	Pollutant mass flux rates:																TOTAL
	Filterable PM	lb/hr	2.73E-01	5.43E-01	6.59E-01	2.77E-01	2.55E-01	3.85E-01	4.82E-01	3.51E-01	1.08E+00	7.94E-01	6.19E-01	3.33E-01	5.07E-01	6.46E-01	6.17E+00
	Emission factors (ENGLISH UNITS):																TOTAL
	Filterable PM	lb/unit	2.98E-03	5.92E-03	7.18E-03	3.02E-03	2.78E-03	4.20E-03	5.25E-03	3.83E-03	1.17E-02	8.65E-03	6.75E-03	3.63E-03	5.52E-03	7.04E-03	6.73E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke106.xls
Ref. No.: 106
Date: 15-Sep-97
Reviewer: bls

Facility: U.S. Steel
Location: Orem, Utah
Source: Combustion Stack No. 2
Test date: Week of 2/16/82

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	343	338	340	340.3
	Pressure	in. Hg	25.36	25.43	25.59	25.5
	Moisture	%	16.3	12.1	10.2	12.9
	Oxygen	%	11.7	11.5	14.1	12.4
	Gas volume sampled	dscf	84.11	87.96	97.90	89.99
	Vol. flow, actual	acfm	78,819	72,217	78,200	76,412
	Vol. flow, standard*	dscfm	36,767	35,698	39,640	37,369
	Isokinetic variation	%	92.6	99.1	99.3	97.0
	Process rate (specify units)	tph	35.23	30.14	28.70	31.36
Indicate basis for process rate (feed or production): tons coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.10939	0.08755	0.06844	8.85E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0201	0.0154	0.0108	1.54E-02
	CO2	% vol.	5.2	5.4	4.2	4.93E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.32E+00	4.70E+00	3.67E+00	4.90E+00
	CO2	lb/hr	1.31E+04	1.33E+04	1.13E+04	1.26E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.80E-01	1.56E-01	1.28E-01	1.54E-01
	CO2	lb/unit	3.72E+02	4.41E+02	3.95E+02	4.02E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE107.XLS
Ref. No.: 107
Date: 05-Nov-97
Reviewer: sjs

Facility: U.S. Steel Corp.-Geneva Works
Location: Provo, UT
Source: Battery #3 stack, COG
Test date: 2/3-5/81

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #3	Stack temperature	Deg F	445	445	450	446.7
stack	Pressure	in. Hg	25.602	25.6	25.612	25.6
COG	Moisture	%	13.7	14.5	14.0	14.1
	Oxygen	%	10.0	9.4	8.6	9.3
	Gas volume sampled	dscf	56.54	70.86	56.21	61.20
	Vol. flow, actual	acfm	86,244	91,562	62,782	80,196
	Vol. flow, standard*	dscfm	37,157	39,079	26,817	34,351
	Isokinetic variation	%	91.1	94.6	109.3	98.3
	Process rate (specify units)	ton/hr	44.53	30.83	47.95	41.10
Indicate basis for process rate (feed or production coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.1797	0.2896	0.1885	2.19E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.049038272	0.06306225	0.05174352	5.46E-02
	CO2	% vol.	5.6	7.3	7.5	6.80E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.56E+01	2.11E+01	1.19E+01	1.62E+01
	CO2	lb/hr	1.43E+04	1.95E+04	1.38E+04	1.59E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	3.51E-01	6.85E-01	2.48E-01	4.28E-01
	CO2	lb/unit	3.20E+02	6.34E+02	2.87E+02	4.14E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE108.XLS
Ref. No.: 108
Date: 05-Nov-97
Reviewer: sjs

Facility: U.S. Steel Corp.-Geneva Works
Location: Provo, UT
Source: Battery #2 stack, fuel not spec.
Test date: 12/20-22/82

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #2	Stack temperature	Deg F	315	337	329	327.0
stack	Pressure	in. Hg	25.42	25.29	25.25	25.3
fuel not spe	Moisture	%	10.4	10.0	10.8	10.4
	Oxygen	%	14.4	15.8	15.5	15.2
	Gas volume sampled	dscf	109.84	90.45	88.79	96.36
	Vol. flow, actual	acfm	81,123	69,645	69,364	73,377
	Vol. flow, standard*	dscfm	42,073	35,107	34,942	37,374
	Isokinetic variation	%	105.0	104.0	103.0	104.0
	Process rate (specify units)	ton/hr	28.45	28.45	28.45	28.45
Indicate basis for process rate: coal charged (average)						
	Pollutant mass:					
	Filterable PM	grams	0.08367	0.02325	0.021	4.26E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.011753822	0.00396634	0.00364923	6.46E-03
	CO2	% vol.	3.6	2.9	3.0	3.17E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.24E+00	1.19E+00	1.09E+00	2.18E+00
	CO2	lb/hr	1.04E+04	6.98E+03	7.18E+03	8.18E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.49E-01	4.20E-02	3.84E-02	7.65E-02
	CO2	lb/ton	3.65E+02	2.45E+02	2.52E+02	2.87E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE109.XLS
Ref. No.: 109
Date: 05-Nov-97
Reviewer: sjs

Facility: U.S. Steel Corp.-Geneva Works
Location: Provo, UT
Source: Battery #4 stack, COG
Test date: 5/18-20/82

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #4	Stack temperature	Deg F	278	277	279	278.0
stack	Pressure	in. Hg	25.24	25.3	25.58	25.4
COG	Moisture	%	7.1	10.3	8.8	8.7
	Oxygen	%	16.0	15.1	15.4	15.5
	Gas volume sampled	dscf	97.18	143.17	81.88	107.41
	Vol. flow, actual	acfm	78,387	106,963	96,039	93,796
	Vol. flow, standard*	dscfm	43,955	58,156	53,531	51,881
	Isokinetic variation	%	90.0	101.0	98.0	96.3
	Process rate (specify units)	ton/hr	51.375	51.375	51.375	51.375
Indicate basis for process rate (feed or production coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.07809	0.07384	0.06233	7.14E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.012399447	0.007957808	0.01174644	1.07E-02
	CO2	% vol.	3.1	3.4	3.3	3.30E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	4.67E+00	3.97E+00	5.39E+00	4.68E+00
	CO2	lb/hr	9.43E+03	1.37E+04	1.22E+04	1.18E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	9.09E-02	7.72E-02	1.05E-01	9.10E-02
	CO2	lb/ton	1.83E+02	2.66E+02	2.38E+02	2.29E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE110.XLS
Ref. No.: 110
Date: 18-Nov-97
Reviewer: bls

Facility: U.S. Steel Corp.-Geneva Works
Location: Provo, UT
Source: Batteries #1&2 pushing w/ff, COG
Test date: 10/19-20/82

Each run tested a single stack out of 10 baghouse stacks.
Therefore, the emission rates are multiplied by ten to estimate total emissions.

Emission Data/Mass Flux Rates/Emission Factors

			Values reported				
Test ID	Parameter	Units	Stack 1	Stack 6	Stack 5	Stack 10	AVERAGE
Batteries 1&2	Stack temperature	Deg F	104.5	106	97.88	94.8	100.8
pushing w/ff	Pressure	in. Hg	25.58	25.58	25.72	25.7	25.6
COG	Moisture	%	1.0	1.0	2.0	1.2	1.3
	Oxygen	%	21.0	21.0	21.0	21.1	21.0
	Gas volume sampled	dscf	37.48	42.05	29.65	34.98	36.04
	Vol. flow, actual	acfm	51,843	59,011	45,045	51,293	51,798
	Vol. flow, standard*	dscfm	41,055	46,598	35,900	41,448	41,250
	Isokinetic variation	%	95.2	102.6	89.7	100.0	96.9
	Process rate (specify units)	ton/hr	315.65	315.65	383.60	342.50	339.349
Basis for process rate: coal charged--based on sampling time (for consistency with the emission rate)							
	Pollutant mass:						
	Filterable PM	grams	0.01411	0.00733	0.01453	0.01421	1.25E-02
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	0.005809048	0.00269002	0.007561481	0.00626745	5.58E-03
	CO2	% vol.	0.0	0.0	0.0	0.0	0.00E+00
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	2.04E+00	1.07E+00	2.33E+00	2.23E+00	1.92E+00
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Number of stacks		10	10	10	10	
	Emission factors (ENGLISH UNITS): lb/hr x 10 / process rate						AVERAGE
	Filterable PM	lb/unit	6.48E-02	3.40E-02	6.07E-02	6.50E-02	5.61E-02
	CO2	lb/ton	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE111.XLS
Ref. No.: 111
Date: 18-Nov-97
Reviewer: sjs

Facility: U.S. Steel Corp.-Geneva Works
Location: Provo, UT
Source: Batteries #3&4 pushing w/ff, COG
Test date: 12/28-29/82

Each run tested a single stack out of 10 baghouse stacks.
Therefore, the emission rates are multiplied by ten to estimate total emissions.

Emission Data/Mass Flux Rates/Emission Factors

			Values reported				
Test ID	Parameter	Units	Run 1	Run 2	Run 3	Run 4	AVERAGE
Batteries #3&4	Stack temperature	Deg F	74.5	79.1	71.2	78	75.7
pushing w/ff	Pressure	in. Hg	25.74	25.74	25.64	25.64	25.7
COG	Moisture	%	1.6	1.5	0.8	1.1	1.3
	Oxygen	%	21.0	21.0	21.0	21.0	21.0
	Gas volume sampled	dscf	49.11	57.06	39.58	50.96	49.18
	Vol. flow, actual	acfm	38,439	41,908	31,354	36,944	37,161
	Vol. flow, standard*	dscfm	32,147	34,778	26,493	30,729	31,037
	Isokinetic variation	%	100.0	99.0	99.0	100.0	99.5
	Process rate (specify units)	ton/hr	328.8	328.8	328.8	328.8	328.8
Indicate basis for process rate: coal charged							
	Pollutant mass:						
	Filterable PM	grams	0.01675	0.0125	0.00654	0.00795	1.09E-02
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	0.005263048	0.003380273	0.002549511	0.00240725	3.40E-03
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	1.45E+00	1.01E+00	5.79E-01	6.34E-01	9.18E-01
	Number of stacks		10	10	10	10	
	Emission factors (ENGLISH UNITS):						AVERAGE
	Filterable PM	lb/ton	4.41E-02	3.06E-02	1.76E-02	1.93E-02	2.79E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: coke112.xls
Ref. No.: 112
Date: 18-Nov-97
Reviewer: bls

Facility: U.S. Steel Corp.
Location: Birmingham, AL
Source: #9 Battery Pushing w/FF
Test date: 8/18-21/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Run 1	Run 2	Run 3	Run 4	AVERAGE
	Stack temperature	Deg F	129	132	132	133	131.5
pushing w/ff	Pressure	in. Hg	30.24	30.18	30.02	30.01	30.1
COG	Moisture	%	2.8	2.7	2.7	2.7	2.7
	Oxygen	%	19.3	19.5	18.8	19.4	19.2
	Gas volume sampled	dscf	68.30	65.66	66.02	63.70	65.92
	Vol. flow, actual	acfm	188,877	184,919	178,405	174,118	181,580
	Vol. flow, standard*	dscfm	166,369	161,919	155,323	151,363	158,744
	Isokinetic variation	%	91.3	90.2	94.5	93.6	92.4
	Process rate (specify units)	ton/hr	270	270	270	270	270
Indicate basis for process rate: coke pushed (adjusted to a sampling time basis)							
	Pollutant mass:						
	Filterable PM	grams	0.0206	0.0141	0.007	0.003	1.12E-02
	Condensable inorg. PM	grams		0.0568	0.0563	0.0688	6.06E-02
	Condensable org. PM	grams		0.0023	0.0007	0.0015	1.50E-03
	Total condensable PM	grams		0.0591	0.057	0.0703	0.06213333
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	4.65E-03	3.31E-03	1.64E-03	7.27E-04	2.58E-03
	Condensable inorg. PM	gr/dscf		1.33E-02	1.32E-02	1.67E-02	1.44E-02
	Condensable org. PM	gr/dscf		5.40E-04	1.64E-04	3.63E-04	3.56E-04
	Total condensable PM	gr/dscf		1.39E-02	1.33E-02	1.70E-02	1.47E-02
	CO2	% vol.	0.00E+00	0.00E+00	0.00E+00		0.00E+00
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	6.64E+00	4.60E+00	2.18E+00	9.43E-01	3.59E+00
	Condensable inorg. PM	lb/hr		1.85E+01	1.75E+01	2.16E+01	1.92E+01
	Condensable org. PM	lb/hr		7.50E-01	2.18E-01	4.71E-01	4.80E-01
	Total condensable PM	lb/hr		1.93E+01	1.77E+01	2.21E+01	1.97E+01
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Emission factors (ENGLISH UNITS):						AVERAGE
	Filterable PM	lb/ton	2.46E-02	1.70E-02	8.07E-03	3.49E-03	1.33E-02
	Condensable inorg. PM	lb/unit		6.86E-02	6.49E-02	8.01E-02	7.12E-02
	Condensable org. PM	lb/unit		2.78E-03	8.07E-04	1.75E-03	1.78E-03
	Total condensable PM	lb/unit		7.14E-02	6.57E-02	8.18E-02	7.30E-02
	CO2	lb/ton	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT
Report subtracted sulfates from cond. inorg. PM. Sulfates included for AP-42.

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke114.xls
Ref. No.: 114
Date: 03-Nov-97
Reviewer: bls

Facility: US Steel
Location: Fairfield, AL
Source: Combustion stack, COG-fired
Test date: 8/19-21/75

Method 17, analysis method for cond. PM not specified, C-rated--documentation

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	460	510	478	482.7
	Pressure	in. Hg	29.99	30.04	30.1	30.0
	Moisture	%	11.0	12.9	11.4	11.8
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	53.09	49.55	46.99	49.88
	Vol. flow, actual	acfm	73,150	78,793	72,622	74,855
	Vol. flow, standard*	dscfm	37,451	37,506	36,437	37,131
	Isokinetic variation	%				#DIV/0!
	Process rate (specify units)		91.2	91.2	85.5	89.3471178
Indicate basis for process rate: coal charged						
	Pollutant mass:					
	Filterable PM	grams	4.14E-01	3.55E-01	3.63E-01	3.77E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.20E-01	1.11E-01	1.19E-01	1.17E-01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.86E+01	3.55E+01	3.72E+01	3.71E+01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	4.23E-01	3.90E-01	4.35E-01	4.16E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke119.xls
Ref. No.: 119
Date: 15-Sep-97
Reviewer: bls

Facility: Bethlehem Steel
Location: Bethlehem, PA
Source: Envirotech Q-car--pushing
Test date: 3/07-09/79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported						
			Run 1-push	Run 1-travel	Run 2-push	Run 2-travel	Run 3-push	Run 3-travel	AVERAGE
1	Stack temperature	Deg F	150	139	150	140	150	140	1.46E+02
	Pressure	in. Hg	29.8	29.8	29.8	29.8	29.8	29.8	2.98E+01
	Moisture	%	17.7	17.8	16.2	16.2	18.9	18.9	1.74E+01
	Oxygen	%	19.1	19.1	18.0	18.0	18.0	18.0	1.84E+01
	Gas volume sampled	dscf							#DIV/0!
	Vol. flow, actual	acfm	125,985	85,755	122,016	83,106	122,004	81,853	1.08E+05
	Vol. flow, standard*	dscfm	89,388	61,886	88,149	61,040	85,301	58,183	7.72E+04
	Sampling time	min							
	Isokinetic variation	%							#DIV/0!
	Process rate (specify units)	tons/test	45.32		45.32		45.32		4.53E+01
Indicate basis for process rate (feed or production): coke pushed									
	Pollutant mass:								
	Filterable PM	grams							#DIV/0!
	Pollutant concentrations:								AVERAGE
	Filterable PM	gr/dscf	0.0423		0.0295		0.0319		3.46E-02
	CO2	% vol.	1.6		1.8		1.8		1.73E+00
	Pollutant mass flux rates:								AVERAGE
	Filterable PM	lb/hr	2.75E+01		1.89E+01		1.99E+01		2.21E+01
	Emission factors (ENGLISH UNITS):								AVERAGE
	Filterable PM	lb/unit	6.07E-01		4.17E-01		4.39E-01		4.88E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke production

Filename: coke120.xls
Ref. No.: 120
Date: 08-Dec-97
Reviewer: bls

Facility: Allied Chemical
Location: Ashland, KY
Source: No. 3 battery pushing w/ scrubber
Test date: 10-Nov-80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	92	93.6	99.7	95.1
	Pressure	in. Hg	29.79	29.89	29.57	29.8
	Moisture	%	1.2	1.7	2.0	1.6
	Oxygen	%	19.2	19.0	18.8	19.0
	Gas volume sampled	dscf	59.84	68.79	84.12	70.92
	Vol. flow, actual	acfm				#DIV/0!
	Vol. flow, standard*	dscf/over	138,801	161,219	199,078	166,366
	Isokinetic variation	%	103.4	102.4	101.4	102.4
	Process rate (specify units)	t/oven	12.32	12.27	12.27	12.28666667
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.0194	0.0321	0.0118	0.0211
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.005002791	0.007200134	0.002164353	0.004789093
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/oven	9.92E-02	1.66E-01	6.16E-02	1.09E-01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	8.05E-03	1.35E-02	5.02E-03	8.86E-03

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke121.xls
Ref. No.: 121
Date: 12/08/97
Reviewer: bls

Facility: Armco, Inc.
Location: Middletown, OH
Source: pushing w/ff, No. 2 battery
Test date: 12/14-15/82

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			AVERAGE
			Run 1	Run 2	Run 3	
	Stack temperature	Deg F	84	94	91	89.7
	Pressure	in. Hg	29.1	29.27	29.13	29.2
	Moisture	%	1.2	1.8	1.7	1.6
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	16.97	16.74	16.42	16.71
	Vol. flow, actual	acfm	42,579	43,586	42,298	42,821
	Vol. flow, standard*	dscfm	39,712	39,907	38,791	39,470
	Isokinetic variation	%	98.5	93.4	97.5	96.5
	Process rate (specify units)	t/push	12.6	12.6	12.6	12.6
Indicate basis for process rate (feed or production):		coke pushed				
	Pollutant mass:					
	Filterable PM	grams	0.0009	0.0012	0.0017	0.001266667
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.000818	0.001106	0.001598	0.001174
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/push	6.96E-03	9.46E-03	1.33E-02	9.90E-03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	5.53E-04	7.51E-04	1.05E-03	7.86E-04

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke123.xls
Ref. No.: 123
Date: 08-Dec-97
Reviewer: bls

Facility: Inland Steel
Location: East Chicago, IN
Source: No. 10 batt. combust. stack
Test date: 18-Oct-84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	511.5	492.6	506.8	503.6
	Pressure	in. Hg	29.32	29.32	29.32	29.3
	Moisture	%	9.2	9.8	7.2	8.8
	Oxygen	%	12.4	10.9	12.0	11.8
	Gas volume sampled	dscf	34.96	34.34	36.75	35.35
	Vol. flow, actual	acfm	154,400	152,800	153,200	153,467
	Vol. flow, standard*	dscfm	74,644	74,866	76,048	75,186
	Isokinetic variation	%	96.3	94.3	99.4	96.7
	Process rate (specify units)		92.78	73.58	92.58	86.31
Indicate basis for process rate: coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0446	0.0767	0.0502	0.0572
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0197	0.0345	0.0211	0.0251
	CO2	% vol.	4.3	5.0	3.9	4.4
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.26E+01	2.21E+01	1.37E+01	1.62E+01
	CO2	lb/hr	2.20E+04	2.56E+04	2.03E+04	2.27E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.36E-01	3.01E-01	1.48E-01	1.95E-01
	CO2	lb/unit	2.37E+02	3.49E+02	2.20E+02	2.68E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke124.xls
Ref. No.: 124
Date: 08-Dec-97
Reviewer: bls

Facility: Inland Steel
Location: East Chicago, IN
Source: No. 2 pushing w/scrubber car
Test date: 4/10-11/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	140.5	140	144.6	141.7
	Pressure	in. Hg	29.03	29.26	29.275	29.2
	Moisture	%	22.7	20.7	22.9	22.1
	Oxygen	%	18.8	18.9	18.5	18.7
	Gas volume sampled	dscf	25.81	22.10	24.88	24.26
	Vol. flow, actual	acfm	70,644	62,869	68,317	67,277
	Vol. flow, standard*	dscfm	46,581	42,883	45,002	44,822
	Isokinetic variation	%	97.7	99.9	100.0	99.2
	Process rate (specify units)	tph	177.07	203.80	193.88	191.58
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.1193	0.0915	0.1354	0.1154
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0713	0.0639	0.0840	0.0731
	CO2	% vol.	0.8	0.8	1.0	0.8
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.85E+01	2.35E+01	3.24E+01	2.81E+01
	CO2	lb/hr	2.39E+03	2.26E+03	3.08E+03	2.58E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.161	0.115	0.167	0.148
	CO2	lb/unit	13.5	11.1	15.9	13.5

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke125.xls
Ref. No.: 125
Date: 08-Dec-97
Reviewer: bls

Facility: Inland Steel
Location: East Chicago, IN
Source: No. 11 pushing w/scrubber car
Test date: 20-Apr-79

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	147.6	147.8	140.6	145.3
	Pressure	in. Hg	29.03	29.26	29.275	29.2
	Moisture	%	15.4	14.6	14.2	14.7
	Oxygen	%	18.8	18.7	18.7	18.7
	Gas volume sampled	dscf	22.10	25.21	28.39	25.23
	Vol. flow, actual	acfm	14,510	14,520	16,580	15,203
	Vol. flow, standard*	dscfm	10,348	10,533	12,238	11,040
	Isokinetic variation	%	97.7	99.9	100.0	99.2
	Process rate (specify units)	tph	460.08	390.30	380.77	410.38
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.0290	0.0313	0.0309	0.0304
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0203	0.0192	0.0168	0.0187
	CO2	% vol.	0.9	0.8	1.0	0.9
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.80E+00	1.73E+00	1.76E+00	1.76E+00
	CO2	lb/hr	6.17E+02	5.77E+02	8.13E+02	6.69E+02
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.00390	0.00443	0.00463	0.00432
	CO2	lb/unit	1.34	1.48	2.14	1.65

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke126.xls
Ref. No.: 126
Date: 08-Dec-97
Reviewer: bls

Facility: Inland Steel
Location: East Chicago, IN
Source: No. 3 pushing w/scrubber car
Test date: 12/30-31/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	116.17	118.46	119.29	118.0
	Pressure	in. Hg	29.564	28.92	28.937	29.1
	Moisture	%	13.2	14.3	10.0	12.5
	Oxygen	%	16.3	15.9	15.8	16.0
	Gas volume sampled	dscf	23.53	22.88	33.46	26.62
	Vol. flow, actual	acfm	67,640	68,250	66,010	67,300
	Vol. flow, standard*	dscfm	53,163	51,616	52,382	52,387
	Isokinetic variation	%	102.7	106.6	94.1	101.1
	Process rate (specify units)	tph	259.89	281.88	163.11	234.96
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.0251	0.0257	0.0370	0.0293
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0165	0.0173	0.0171	0.0170
	CO2	% vol.	3.0	3.2	3.4	3.2
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	7.50E+00	7.67E+00	7.66E+00	7.61E+00
	CO2	lb/hr	1.09E+04	1.14E+04	1.21E+04	1.15E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.0289	0.0272	0.0470	0.0343
	CO2	lb/unit	42.0	40.5	74.2	52.2

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke128.xls
Ref. No.: 128
Date: 08-Dec-97
Reviewer: bls

Facility: Inland Steel
Location: East Chicago, IN
Source: No. 4 pushing w/scrubber car
Test date: 8/4-8/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	122.8	122.1	126.9	123.9
	Pressure	in. Hg	29.328	29.275	29.475	29.4
	Moisture	%	14.9	15.7	16.1	15.5
	Oxygen	%	19.3	19.7	19.3	19.4
	Gas volume sampled	dscf	13.30	16.83	17.09	15.74
	Vol. flow, actual	acfm	54,715	54,323	63,850	57,629
	Vol. flow, standard*	dscfm	41,364	40,652	47,494	43,170
	Isokinetic variation	%	93.4	97.8	95.1	95.4
	Process rate (specify units)	tph	310.92	261.73	285.93	286.19
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.0205	0.0276	0.0294	0.0258
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0238	0.0253	0.0266	0.0252
	CO2	% vol.	0.6	0.6	0.9	0.7
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	8.43E+00	8.82E+00	1.08E+01	9.35E+00
	CO2	lb/hr	1.79E+03	1.67E+03	2.83E+03	2.10E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.0271	0.0337	0.0378	0.0329
	CO2	lb/unit	5.7	6.4	9.9	7.3

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke130.xls
Ref. No.: 130
Date: 08-Dec-97
Reviewer: bls

Facility: CF&I Steel Corporation
Location: Pueblo, CO
Source: Pushing w/scrubber car, North
Test date: 3/11-14/80

Runs 1 and 2 void

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			Run 3	Run 4	Run 5	Run 6	AVERAGE
	Stack temperature	Deg F	161	145	145	145	149.0
	Pressure	in. Hg	25.16	24.28	24.67	24.77	24.7
	Moisture	%	29.8	23.1	33.4	29.3	28.9
	Oxygen	%	15.7	15.1	15.0	15.0	15.2
	Gas volume sampled	dscf	28.73	36.73	35.01	31.42	33.0
	Vol. flow, actual	acfm	47,930	48,770	51,410	50,400	49627.5
	Vol. flow, standard*	dscfm	24,067	26,558	24,646	25,749	25254.7
	Isokinetic variation	%	92.9	102.0	96.9	96.8	97.1
	Process rate (specify units)		268.5028597	254.354616	271.702224	274.034566	267.1
Indicate basis for process rate (feed or production): coke pushed							
	Pollutant mass:						
	Filterable PM	grams	0.0906	0.0831	0.0769	0.0850	0.0839
	Coal tar pitch volatiles	grams	0.0624	0.1596	0.0632	0.0176	0.0757
	Pollutant concentrations:						AVERAGE
	Filterable PM	gr/dscf	0.0487	0.0349	0.0339	0.0417	0.0398
	Coal tar pitch volatiles	gr/dscf	0.0335	0.0670	0.0279	0.0086	0.0343
	CO2	% vol.	5.0	4.6	4.7	4.6	4.7
	Pollutant mass flux rates:						AVERAGE
	Filterable PM	lb/hr	1.00E+01	7.95E+00	7.16E+00	9.21E+00	8.59E+00
	Coal tar pitch volatiles	lb/hr	6.91E+00	1.53E+01	5.88E+00	1.91E+00	7.49E+00
	CO2	lb/hr	8.25E+03	8.37E+03	7.94E+03	8.12E+03	8.17E+03
	Emission factors (ENGLISH UNITS):						AVERAGE
	Filterable PM	lb/unit	0.0374	0.0312	0.0264	0.0336	0.0321
	Coal tar pitch volatiles	lb/unit	0.0257	0.0600	0.0217	0.00696	0.0286
	CO2	lb/unit	30.7	32.9	29.2	29.6	30.6

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke130.xls
Ref. No.: 130
Date: 08-Dec-97
Reviewer: bls

Facility: CF&I Steel Corporation
Location: Pueblo, CO
Source: Pushing w/scrubber car, South
Test date: 3/18-20/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	145	145	145	145.0
	Pressure	in. Hg	24.57	25.35	25.76	25.2
	Moisture	%	22.5	24.6	22.7	23.3
	Oxygen	%	15.0	15.8	15.0	15.3
	Gas volume sampled	dscf	37.13	37.58	38.54	37.75
	Vol. flow, actual	acfm	49,420	52,000	49,610	50,343
	Vol. flow, standard*	dscfm	27,460	28,980	28,807	28,416
	Isokinetic variation	%	97.1	103.5	99.5	100.0
	Process rate (specify units)		245.2	272.6	254.2	257.3
Indicate basis for process rate (feed or production):						
	Pollutant mass:					
	Filterable PM	grams	0.1111	0.0670	0.0739	0.0840
	Coal tar pitch volatiles	grams	0.0224	0.0736	0.1882	0.0947
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0462	0.0275	0.0296	0.0344
	Coal tar pitch volatiles	gr/dscf	0.00931	0.0302	0.0753	0.0383
	CO2	% vol.	4.4	4.4	4.7	4.5
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.09E+01	6.83E+00	7.31E+00	8.34E+00
	Coal tar pitch volatiles	lb/hr	2.19E+00	7.51E+00	1.86E+01	9.43E+00
	CO2	lb/hr	8.18E+03	8.74E+03	9.28E+03	8.73E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.0443	0.0251	0.0287	0.0327
	Coal tar pitch volatiles	lb/unit	0.00893	0.0275	0.0732	0.0366
	CO2	lb/unit	33.4	32.1	36.5	34.0

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke135.xls
Ref. No.: 135
Date: 06-Nov-97
Reviewer: bls

Facility: Chatanooga Coke and Chemicals
Location: Chatanooga, TN
Source: No. 1&2 battery pushing w/FF
Test date: 11/17-19/80

FOUNDRY COKE PRODUCTION OPERATIONS

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	102	100	103	101.7
	Pressure	in. Hg	29.18	29.13	29.53	29.3
	Moisture	%	1.0	0.7	0.7	0.8
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	87.66	91.23	85.75	88.21
	Vol. flow, actual	acfm	131,200	131,000	127,700	129,967
	Vol. flow, standard*	dscfm	119,012	119,411	117,373	118,599
	Isokinetic variation	%	97.0	99.5	95.5	97.3
	Process rate (specify units)		230	230	230	230
Indicate basis for process rate: coke pushed per hour						
	Pollutant mass:					
	Filterable PM	grams	0.0169	0.0083	0.0068	0.0107
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00297	0.00140	0.00122	0.00187
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.03E+00	1.44E+00	1.23E+00	1.90E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.32E-02	6.25E-03	5.35E-03	8.26E-03

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke140.xls
Ref. No.: 140
Date: 07-Nov-97
Reviewer: bls

Facility: U.S. Steel Lorain Works
Location: Lorain, Ohio
Source: Quench tower #1
Test date: Nov. 1977

SUMMARY OF COKE QUENCH TOWER ORGANIC EMISSIONS

	Clean Water				Contaminated Water			
	PAH	B(a)P	Filt. PM	BSO	PAH	B(a)P	Filt. PM	BSO
All tests	1.52E-03	3.80E-05	1.36E+00	1.04E+00	6.42E-02	1.62E-04	2.30E+00	1.98E+00
Green Coke Tests	2.34E-03	2.40E-05	1.24E+00	1.04E+00	ND	ND	ND	ND
Nongreen Coke Tests	8.38E-04	4.80E-05	1.58E+00	ND	6.42E-02	1.62E-04	2.30E+00	1.98E+00

VOID
Organics contaminated

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke143.xls
Ref. No.: 143
Date: 07-Nov-97
Reviewer: bls

Facility: U.S. Steel Gary Works
Location: Gary, Indiana
Source: West pushing baghouse (batt. 5&7)
Test date: May 17-19, 1983

The process rate is suspect; appears to be based calculated as follows:
tons coke per push/0.9 min. sampling per push*60 min. per hour
DO NOT USE THIS TEST!

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	96	98.2	110	101.4
	Pressure	in. Hg	29.62	29.13	29.4	29.4
	Moisture	%	1.7	2.4	3.1	2.4
	Oxygen	%	20.0	20.0	20.0	20.0
	Gas volume sampled	dscf	28.51	28.03	29.62	28.72
	Vol. flow, actual	acfm	132,858	134,077	138,186	135,041
	Vol. flow, standard*	dscfm	122,779	120,512	121,880	121,724
	Isokinetic variation	%	94.4	95.1	98.9	96.1
	Process rate (specify units)	tph	547	547	547	547
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	1.78E-02	1.40E-03	4.20E-03	1.05E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	9.63E-03	5.[illegible]E-03	2.19E-03	5.67E-03
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.01E+01	5.[illegible]E+00	2.29E+00	5.92E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.85E-02	9.78E-03	4.18E-03	1.08E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Run 2 void

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke144.xls
Ref. No.: 144
Date: 07-Nov-97
Reviewer: bls

Facility: U.S. Steel Gary Works
Location: Gary, Indiana
Source: Pushing w/quench car scrubber
Test date: 9/14-16/82

The process rate is suspect; appears to be based calculated as follows: tons coke per push/0.9 min. sampling per push*60 min. per hour
DO NOT USE THIS TEST!

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	144.2	139.5	136	139.9
	Pressure	in. Hg	29.85	29.63	29.95	29.8
	Moisture	%	13.2	13.0	13.4	13.2
	Oxygen	%	15.0	15.0	15.0	15.0
	Gas volume sampled	dscf	13.39	13.17	17.20	14.59
	Vol. flow, actual	acfm	50,011	50,414	47,460	49,295
	Vol. flow, standard*	dscfm	37,841	38,259	36,461	37,520
	Isokinetic variation	%	106.4	103.5	106.4	105.4
	Process rate	tph	1467	1467	1467	1467
Indicate basis for process rate: coke produced						
	Pollutant mass:					
	Filterable PM	grams	0.0182	0.015	0.0144	0.0159
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0210	0.0176	0.0129	0.0172
	CO2	% vol.	1.0	1.0	1.0	1.0
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.80E+00	5.76E+00	4.04E+00	5.53E+00
	CO2	lb/hr	2.59E+03	2.62E+03	2.50E+03	2.57E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	4.64E-03	3.93E-03	2.75E-03	3.77E-03
	CO2	lb/unit	1.77E+00	1.79E+00	1.70E+00	1.75E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke147.xls
Ref. No.: 147
Date: 11-Nov-97
Reviewer: bls

Facility: Granite City Steel
Location: Granite City, IL
Source: Battery A Q car scrubber
Test date: 12/16-20/80

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Pushing	Stack temperature	Deg F	112.7	110.9	100.6	108.1
	Pressure	in. Hg	29.565	29.534	30.433	29.8
	Moisture	%	8.7	8.6	6.3	7.8
	Oxygen	%	17.6	17.5	17.5	17.5
	Gas volume sampled	dscf	58.05	34.64	35.86	42.85
	Vol. flow, actual	acfm	69,540	72,510	67,020	69,690
	Vol. flow, standard*	dscfm	57,865	60,523	60,173	59,520
	Isokinetic variation	%	95.6	99.0	98.3	97.7
	Process rate (specify units)		268	270	258	265
Indicate basis for process rate: coke pushed						
	Pollutant mass:					
	Filterable PM	grams	0.0599	0.0383	0.0400	0.0461
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0159	0.0171	0.0172	0.0167
	CO2	% vol.	2.1	2.1	2.1	2.1
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	7.90E+00	8.85E+00	8.88E+00	8.54E+00
	CO2	lb/hr	8.25E+03	8.71E+03	8.45E+03	8.47E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.95E-02	3.27E-02	3.44E-02	3.22E-02
	CO2	lb/unit	3.08E+01	3.22E+01	3.28E+01	3.19E+01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category:

Filename: coke148.xls
Ref. No.: 148
Date: 11-Nov-97
Reviewer: bls

Facility: Philadelphia Coke Co.
Location: Philadelphia, PA
Source: Pushing w/FF, **Foundry Coke**
Test date: 1/8-13/81

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	40.4	76.1		58.3
	Pressure	in. Hg	30.1	30.1		30.1
	Moisture	%	3.1	2.8		3.0
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf				#DIV/0!
	Vol. flow, actual	acfm	114,021	116,907		115,464
	Vol. flow, standard*	dscfm	117,282	112,590	0	76,624
	Isokinetic variation	%	106.8	105.2		106.0
	Process rate (specify units)	tph	~~36~~ 250.1	~~36~~ 213.6		36
Indicate basis for process rate: coal charged						
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0053	0.0045		0.0049
	Condensable inorg. PM	gr/dscf	0.0147	0.0031		0.0089
	CO2	% vol.	0.8	0.9		0.85
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	~~5.33E+00~~ 2.13 E-2	~~4.84E+00~~ 2.03E-2		4.84E+00 2.08E-2
	Condensable inorg. PM	lb/hr	~~1.48E+01~~ 5.91 E-2	~~2.99E+00~~ 1.40 E-2		8.88E+00 3.65E-2
	CO2	lb/hr	~~6.43E+03~~ 2.57E+1	~~6.94E+03~~ 3.25E+1		6.69E+03 2.91E+1
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	~~1.48E-01~~	~~1.21E-01~~		1.34E-01
	Condensable inorg. PM	lb/unit	~~4.10E-01~~	~~8.32E-02~~		2.47E-01
	CO2	lb/unit	~~1.79E+02~~	~~1.93E+02~~		1.86E+02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke149.xls
Ref. No.: 149
Date: 11-Nov-97
Reviewer: bls

Facility: Wheeling Pittsburgh Steel
Location: Monessen, PA
Source: Pushing w/FF
Test date: 8/3-5/81

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	137	142	139	139.3
	Pressure	in. Hg	29.48	29.32	29.24	29.3
	Moisture	%	3.4	3.1	3.1	3.2
	Oxygen	%	21.0	21.0	21.0	21.0
	Gas volume sampled	dscf	56.24	89.23	58.72	68.06
	Vol. flow, actual	acfm	132,700	137,800	136,200	135,567
	Vol. flow, standard*	dscfm	111,705	114,766	113,690	113,387
	Isokinetic variation	%	99.3	99.4	99.4	99.4
	Process rate (specify units)		~~42.89~~	~~34.43~~	~~34.43~~	~~37.25~~
Indicate basis for process rate: coke pushed			154.4	148.4	166.5	156.4
	Pollutant mass:					
	Filterable PM	grams	0.0221	0.0228	0.0116	0.0188
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00606	0.00394	0.00305	0.00435
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	5.81E+00	3.88E+00	2.97E+00	4.22E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	~~1.35E-01~~	~~1.13E-01~~	~~8.63E-02~~	~~1.11E-01~~

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

3.76E-2 2.61E-2 1.78E-2 2.72E-2

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke150.xls
Ref. No.: 150
Date: 11-Nov-97
Reviewer: bls

Facility: Wheeling Pittsburgh Steel
Location: Monessen, PA
Source: Pushing w/FF
Test date: 14-Mar-84

includes PA Method for condensibles (not used)

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	86	95	97	92.7
	Pressure	in. Hg	29.39	29.65	29.42	29.5
	Moisture	%	1.8	1.1	1.4	1.4
	Oxygen	%	19.3	19.5	19.5	19.4
	Gas volume sampled	dscf	50.23	96.89	126.09	91.07
	Vol. flow, actual	acfm	129,420	134,339	132,134	131,964
	Vol. flow, standard*	dscfm	120,785	125,308	121,437	122,510
	Isokinetic variation	%	96.4	95.7	98.4	96.8
	Process rate (specify units)		~~42.70~~	~~42.10~~	~~40.30~~	41.70
Indicate basis for process rate: coke pushed			246.53	148.95	109.60	
	Pollutant mass:					
	Filterable PM	grams	0.0381	0.0654	0.0647	0.0561
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.01170	0.01042	0.00792	0.01001
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.21E+01	1.12E+01	8.24E+00	1.05E+01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	~~2.84E-01~~	~~2.66E-01~~	~~2.04E-01~~	2.51E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

4.92E-2 7.51E-2 7.52E-2 6.65E-2

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke153.xls
Ref. No.: 153
Date: 01-Sep-97
Reviewer: bls

Facility: Koppers Industries, Inc.
Location: Dolomite, Alabama
Source: Pushing with ff (South stack)
Test date: 15-Nov-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	105	105	104	104.7
	Pressure	in. Hg	29.79	29.84	29.79	29.8
	Moisture	%	1.9	1.8	1.3	1.7
	Oxygen	%	20.5	20.7	20.5	20.6
	Gas volume sampled	dscf	37.14	45.49	47.26	43.30
	Vol. flow, actual	acfm	175,367	175,367	178,514	176,416
	Vol. flow, standard*	dscfm	160,119	160,454	164,263	161,612
	Isokinetic variation	%	95.7	97.4	98.9	97.3
	Process rate (specify units)	tph	72.00	80.00	80.00	77.33
Indicate basis for process rate (feed or production): tons coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0013	0.0008	0.0009	1.00E-03
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0005	0.0003	0.0003	3.68E-04
	CO2	% vol.	0.0	0.0	0.0	0.00E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	7.41E-01	3.73E-01	4.14E-01	5.09E-01
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.03E-02	4.67E-03	5.17E-03	6.71E-03
	CO2	lb/unit	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke153.xls
Ref. No.: 153
Date: 01-Sep-97
Reviewer: bls

Facility: Koppers Industries, Inc.
Location: Dolomite, Alabama
Source: Pushing with ff (North stack)
Test date: 16-Nov-90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
2	Stack temperature	Deg F	97	107	108	104.0
	Pressure	in. Hg	29.67	29.61	29.58	29.6
	Moisture	%	1.7	1.7	1.7	1.7
	Oxygen	%	20.6	20.6	20.6	20.6
	Gas volume sampled	dscf	47.16	47.79	48.66	47.87
	Vol. flow, actual	acfm	174,795	178,228	182,519	178,514
	Vol. flow, standard*	dscfm	161,566	161,539	164,869	162,658
	Isokinetic variation	%	100.3	101.6	101.5	101.1
	Process rate (specify units)	tph	80.00	80.00	80.00	80.00
Indicate basis for process rate (feed or production): tons coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0015	0.0013	0.0016	1.47E-03
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0005	0.0004	0.0005	4.73E-04
	CO2	% vol.	0.0	0.0	0.0	0.00E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.80E-01	5.81E-01	7.17E-01	6.59E-01
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	8.50E-03	7.26E-03	8.96E-03	8.24E-03
	CO2	lb/unit	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke155.xls
Ref. No.: 155
Date: 01-Sep-97
Reviewer: bls

Facility: Jim Walters Resources
Location: Birmingham, Alabama
Source: Pushing with ff
Test date: 11/6-7/84

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
1	Stack temperature	Deg F	81	85	90	85.3
	Pressure	in. Hg	30.2	30.23	30.25	30.2
	Moisture	%	5.3	5.3	4.9	5.2
	Oxygen	%	20.5	20.0	19.5	20.0
	Gas volume sampled	dscf	16.68	18.42	19.65	18.25
	Vol. flow, actual	acfm	181,159	178,652	179,075	179,629
	Vol. flow, standard*	dscfm	168,931	165,569	165,257	166,586
	Isokinetic variation	%	106.6	104.5	105.0	105.4
	Process rate (specify units)	tph	910.60	792.50	745.00	816.03
Indicate basis for process rate (feed or production): tons coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0074	0.00845	0.00355	6.47E-03
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0068	0.0071	0.0028	5.57E-03
	CO2	% vol.	0.0	0.5	1.0	5.00E-01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	9.91E+00	1.00E+01	3.95E+00	7.97E+00
	CO2	lb/hr	0.00E+00	5.67E+03	1.13E+04	5.67E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.09E-02	1.27E-02	5.30E-03	9.62E-03
	CO2	lb/unit	0.00E+00	7.16E+00	1.52E+01	7.45E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke156.xls
Ref. No.: 156
Date: 26-Nov-97
Reviewer: bls

Facility: Sloss Industries
Location: Birmingham, Alabama
Source: #3 and #4 Underfire Stack
Test date: 16-May-95

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported					AVERAGE
			Run 1	Run 2	Run 3	Run 4	Run 5	
1	Stack temperature	Deg F	591	574	591	575	576	581.4
	Pressure	in. Hg	29.74	29.74	29.74	29.74	29.74	29.7
	Moisture	%	9.5	13.8	14.9	12.7	12.7	12.7
	Oxygen	%	10.1	10.4	10.2	10.4	10.2	10.3
	Gas volume sampled	dscf	33.64	37.07	35.50			35.4
	Vol. flow, actual	acfm	81,821	90,361	89,168	72,451	74,632	81686.6
	Vol. flow, standard*	dscfm	36,964	39,549	37,883	32,058	32,991	35888.9
	Isokinetic variation	%	101.0	102.0	101.0			101.3
	Process rate (specify units)		34.5	34.5	34.5	34.5	34.5	34.5
Indicate basis for process rate: coal charged--backed out using ACCCI emission factors								
	Pollutant mass:							
	Filterable PM	grams	0.1286	0.0865	0.0938			0.1
	Pollutant concentrations:							AVERAGE
	Filterable PM	gr/dscf	0.0590	0.0360	0.0408			0.0453
	TOC as carbon	ppmdv			17.29	32	32.39	
	TOC as propane	ppmdv			5.8	10.7	10.8	9.1
	SO2	ppmdv			266.7	286.0	300.3	284.3
	CO2	% vol.	4.7	4.8	4.8	4.8	4.8	4.8
	NOx	ppmdv			159.4	166.0	170.6	165.3
	CO	ppmdv			11.9	11.9	48.1	24.0
								#DIV/0!
								#DIV/0!
	Pollutant mass flux rates:							AVERAGE
	Filterable PM	lb/hr	1.87E+01	1.22E+01	1.32E+01			14.7
	TOC as propane	lb/hr			1.50E+00	2.34E+00	2.44E+00	2.1
	SO2	lb/hr			1.01E+02	9.14E+01	9.87E+01	96.9
	CO2	lb/hr	1.20E+04	1.30E+04	1.25E+04	1.05E+04	1.08E+04	11759.0
	NOx	lb/hr			4.33E+01	3.81E+01	4.03E+01	40.6
	CO	lb/hr			1.97E+00	1.67E+00	6.92E+00	3.5
		lb/hr						#DIV/0!
		lb/hr						#DIV/0!
	Emission factors (ENGLISH UNITS):							AVERAGE
	Filterable PM	lb/unit	0.542	0.354	0.384			0.426
	TOC as propane	lb/unit			0.0434	0.0679	0.0707	0.0607
	SO2	lb/unit			2.92	2.65	2.86	2.81
	CO2	lb/unit	347	377	361	305	314	341
	NOx	lb/unit			1.25	1.10	1.17	1.18
	CO	lb/unit			0.0571	0.0483	0.201	0.102
		lb/unit						
		lb/unit						

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE157.XLS
Ref. No.: 157
Date: 14-Oct-97
Reviewer: sjs

Facility: Koppers Ind.-Woodward coke plant
Location: Dolomite, AL
Source: #1 Battery stack uncontrolled, COG
Test date: 25-Jan-96

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
#1 Battery St	Stack temperature	Deg F	505.7	483.3	473.2	487.4
Uncontrolled	Pressure	in. Hg	29.86	29.9	29.82	29.9
COG	Moisture	%	9.3	9.0	9.2	9.2
	Oxygen	%	13.5	13.4	13.7	13.5
	Gas volume sampled	dscf	40.69	42.37	35.73	39.60
	Vol. flow, actual	acfm	54,540	58,323	48,534	53,799
	Vol. flow, standard*	dscfm	26,992	29,688	24,851	27,177
	Isokinetic variation	%	104.0	98.9	99.6	100.8
	Process rate (specify units)	TPH	35.2	35.2	35.2	35.2
Indicate basis for process rate (feed or production): average coal charged from past 30 days						
	Pollutant mass:					
	Filterable PM	grams	0.1355	0.5391	0.0815	2.52E-01
	Unspecified Cond. PM	grams	0.0378	0.0325	0.042	3.74E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	5.14E-02	1.96E-01	3.52E-02	9.43E-02
	Unspecified Cond. PM	gr/dscf	1.43E-02	1.18E-02	1.81E-02	1.48E-02
	TOC as propane	ppmdv	9.1	0.0	0.0	3.03E+00
	SO2	ppmdv	297.4	300.3	279.7	2.92E+02
	CO2	% vol.	3.5	3.6	3.5	3.53E+00
	NOx	ppmdv	200.9	179.5	154.3	1.78E+02
	CO	ppmdv	4.2	0.0	1.1	1.77E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.19E+01	5.00E+01	7.50E+00	2.31E+01
	Unspecified Cond. PM	lb/hr	3.32E+00	3.01E+00	3.86E+00	3.40E+00
	TOC as propane	lb/hr	1.68E+00	0.00E+00	0.00E+00	5.61E-01
	SO2	lb/hr	8.00E+01	8.89E+01	6.93E+01	7.94E+01
	CO2	lb/hr	6.53E+03	7.32E+03	5.91E+03	6.59E+03
	NOx	lb/hr	3.88E+01	3.82E+01	2.75E+01	3.48E+01
	CO	lb/hr	4.94E-01	0.00E+00	1.19E-01	2.05E-01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton coal	3.38E-01	~~1.42E+00~~	2.13E-01	6.57E-01
	Condensable inorg. PM	lb/ton coal	9.42E-02	8.56E-02	1.10E-01	9.65E-02
	TOC as propane	lb/ton coal	4.78E-02	0.00E+00	0.00E+00	1.59E-02
	SO2	lb/ton coal	2.27E+00	2.52E+00	1.97E+00	2.26E+00
	CO2	lb/ton coal	1.85E+02	2.08E+02	1.68E+02	1.87E+02
	NOx	lb/ton coal	1.10E+00	1.08E+00	7.80E-01	9.89E-01
	CO	lb/ton coal	1.40E-02	0.00E+00	3.39E-03	5.81E-03

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Run 2
filt. PM void

Source Category: Coke production

Filename: COKE159.XLS
Ref. No.: 159
Date: 15-Oct-97
Reviewer: sjs

Facility: Koppers Industry
Location: Dolomite, AL
Source: Combustion Stack #1
no controls specified, COG
Test date: 21-Aug-91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery stac	Stack temperature	Deg F	568.7	492.6	483.3	514.9
COG	Pressure	in. Hg	29.71	29.71	29.79	29.7
	Moisture	%	11.8	10.7	9.8	10.8
	Oxygen	%	10.0	9.5	9.3	9.6
	Gas volume sampled	dscf	29.86	33.72	48.78	37.45
	Vol. flow, actual	acfm	64,200	41,800	58,000	54,667
	Vol. flow, standard*	dscfm	28,860	20,544	29,156	26,187
	Isokinetic variation	%	109.2	108.8	105.6	107.9
	Process rate (specify units)	tons/hr	39.33	39.33	39.33	39.33
Indicate basis for process rate (feed or		coal charged				
	Pollutant mass:					
	Filterable PM	grams	0.21	0.263	0.146	2.06E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.10851641	0.120346679	0.04618624	9.17E-02
	SO2	ppmdv	555.3	616.4	473.5	5.48E+02
	CO2	% vol.	10.8	11.3	11.5	1.12E+01
	NOx	ppmdv	266.5	266.3	232.6	2.55E+02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.68E+01	2.12E+01	1.15E+01	1.99E+01
	SO2	lb/hr	1.60E+02	1.26E+02	1.38E+02	1.41E+02
	CO2	lb/hr	2.14E+04	1.59E+04	2.30E+04	2.01E+04
	NOx	lb/hr	5.51E+01	3.92E+01	4.86E+01	4.76E+01
	CO	lb/hr	#REF!	#REF!	#REF!	#REF!
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	6.83E-01	5.39E-01	2.93E-01	5.05E-01
	SO2	lb/ton	4.06E+00	3.21E+00	3.50E+00	3.59E+00
	CO2	lb/ton	5.43E+02	4.04E+02	5.84E+02	5.11E+02
	NOx	lb/ton	1.40E+00	9.96E-01	1.24E+00	1.21E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE161.XLS
Ref. No.: 161
Date: 15-Oct-97
Reviewer: sjs

Facility: Alabama By-Products Corporation
Location: Tarrant, AL
Source: Battery #1 Pushing w/ff
Test date: 9/9-11/85

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #1	Stack temperature	Deg F	119	124	125	122.7
Pushing w/ff	Pressure	in. Hg	30.06	30.06	30.06	30.1
fuel not	Moisture	%	5.5	6.2	6.9	6.2
specified	Oxygen	%	18.5	18.5	18.5	18.5
	Gas volume sampled	dscf	10.99	10.28	10.20	10.49
	Vol. flow, actual	acfm	139,504	137,757	142,266	139,842
	Vol. flow, standard*	dscfm	120,820	117,435	120,078	119,444
	Isokinetic variation	%	105.4	102.0	101.4	102.9
	Process rate (specify units)	tons/hr	1934.328358	1940.11976	1903.93459	1926.12757
Indicate basis for process rate (feed or coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.022	0.0076	0.0227	1.74E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.030893702	0.011411833	0.03435279	2.56E-02
	CO2	% vol.	1.5	1.5	1.5	1.50E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.20E+01	1.15E+01	3.54E+01	2.63E+01
	CO2	lb/hr	1.24E+04	1.21E+04	1.23E+04	1.23E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.65E-02	5.92E-03	1.86E-02	1.37E-02
	CO2	lb/ton	6.42E+00	6.22E+00	6.48E+00	6.37E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: COKE162.XLS
Ref. No.: 162
Date: 22-Oct-97
Reviewer: sjs

Facility: Erie Coke Corporation
Location: Erie, PA
Source: Pushing w/quench car
Test date: 3/17-18/94

D-rated data...no details or data sheets provided.

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Pushing w/	Stack temperature	Deg F	59	61		60.0
quench car	Pressure	in. Hg				#DIV/0!
fuel not spe	Moisture	%	1.5	1.9		1.7
	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	15.98	15.91		15.94
	Vol. flow, actual	acfm	28,400	29,900		29,150
	Vol. flow, standard*	dscfm	28,000	28,700		28,350
	Isokinetic variation	%	100.0	96.8		98.4
	Process rate (specify units)	tons/hr	23.53125	23.53125		23.53125
Indicate basis for process rate:		coke pushed				
	Pollutant mass:					
	Filterable PM	grams				#DIV/0!
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0186	0.0175		1.81E-02
	Pollutant mass flux rates:		0.279	0.269		AVERAGE
	Filterable PM	lb/hr	~~4.46E+00~~	~~4.31E+00~~		~~4.38E+00~~
	Emission factors (ENGLISH UNITS):		0.0119	0.0114		AVERAGE
	Filterable PM	lb/ton	~~1.90E-01~~	~~1.83E-01~~		~~1.86E-01~~ 0.0116

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

0.274

Adjust emission rates from lb/hr pushing to lb/hr real time!

Source Category: Coke production

Filename: coke163.xls
Ref. No.: 163
Date: 22-Oct-97
Reviewer: sjs

Facility: Erie Coke Corporation
Location: Erie, PA
Source: Pushing w/quench car scrubber sys.
Test date: 4/18-19/95

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Pushing w/	Stack temperature	Deg F	72	71		71.5
quench car	Pressure	in. Hg				#DIV/0!
scrubber	Moisture	%	2.6	1.2		1.9
system	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	21.52	21.39		21.45
	Vol. flow, actual	acfm	39,700	40,600		40,150
	Vol. flow, standard*	dscfm	38,000	39,200		38,600
	Isokinetic variation	%	98.9	95.4		97.2
	Process rate (specify units)	tons/hr	28.74	26.61		27.675
Indicate basis for process rate:		coke pushed				
	Pollutant mass:					
	Filterable PM	grams				#DIV/0!
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.011	0.0125		1.18E-02
	Pollutant mass flux rates:		0.273	0.297		AVERAGE
	Filterable PM	lb/hr	~~3.58E+00~~	~~4.20E+00~~		~~3.89E+00~~ .285
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	~~1.25E-01~~	~~1.58E-01~~		1.41E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

0.00952 0.0112 0.0103

Source Category: Coke production

Filename: coke164.xls
Ref. No.: 164
Date: 22-Oct-97
Reviewer: sjs

Facility: Erie Coke Corporation
Location: Erie, PA
Source: Pushing w/quench car scrubber sys.
Test date: 8/7-8/96

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Pushing w/	Stack temperature	Deg F	106	103		104.5
quench car	Pressure	in. Hg				#DIV/0!
scrubber	Moisture	%	5.1	5.4		5.3
system	Oxygen	%				#DIV/0!
	Gas volume sampled	dscf	15.49	16.38		15.93
	Vol. flow, actual	acfm	31,400	33,200		32,300
	Vol. flow, standard*	dscfm	27,800	29,300		28,550
	Isokinetic variation	%	97.6	95.6		96.6
	Process rate (specify units)	tons/hr	38.3 ~~31.63~~	34.5 ~~28.49~~		30.06
Indicate basis for process rate: Coal charged ~~Coke pushed~~						
	Pollutant mass:					
	Filterable PM	grams				#DIV/0!
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0356	0.025		3.03E-02
	Pollutant mass flux rates:		0.713	0.475		AVERAGE
	Filterable PM	lb/hr	~~8.40E+00~~	~~6.28E+00~~		~~7.38E+00~~ 0.594
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	~~2.68E-01~~ 0.0186	~~2.20E-01~~ 0.0138		~~2.44E-01~~ 0.0162

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

VOID!

Source Category: Coke production

Filename: COKE165.XLS
Ref. No.: 165
Date: 22-Oct-97
Reviewer: sjs

Facility: Alabama By-Products Corporation
Location: Tarrant, AL
Source: Battery #1 Pushing w/ff
Test date: 7/9-11/85

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #1	Stack temperature	Deg F	127	119	116	120.7
Pushing w/ff	Pressure	in. Hg	30.19	30.2	30.25	30.2
fuel not spe	Moisture	%	4.8	5.1	4.8	4.9
	Oxygen	%	19.0	18.5	18.5	18.7
	Gas volume sampled	dscf	14.72	14.24	14.57	14.51
	Vol. flow, actual	acfm	89,986	90,657	110,736	97,126
	Vol. flow, standard*	dscfm	77,743	79,156	97,701	84,867
	Isokinetic variation	%	95.6	97.3	96.1	96.3
	Process rate (specify units)	tons/hr	1640.5	1759.9	2089.2	1829.86667
Indicate basis for process rate (feed or coal charged						
	Pollutant mass:					
	Filterable PM	grams	0.0208	0.0597	0.0578	4.61E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.02180178	0.064702606	0.06120327	4.92E-02
	CO2	% vol.	1.0	1.5	1.5	1.33E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.45E+01	4.39E+01	5.13E+01	3.66E+01
	CO2	lb/hr	5.33E+03	8.14E+03	1.00E+04	7.83E+03
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	8.86E-03	2.49E-02	2.45E-02	1.94E-02
	CO2	lb/ton	3.25E+00	4.62E+00	4.81E+00	4.23E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: coke166.xls
Ref. No.: 166
Date: 22-Oct-97
Reviewer: sjs

Facility: Inland Steel Company, Plant #2
Location: East Chicago, IN
Source: #11 Battery (pushing)
Test date: 1/22/90-2/7/90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #11	Stack temperature	Deg F	69	56	34	53.0
Pushing	Pressure	in. Hg	29.66	29.66	29.92	29.7
fuel not spe	Moisture	%	0.8	0.6	1.1	0.9
	Oxygen	%	20.9	20.9	20.9	20.9
	Gas volume sampled	dscf	50.68	45.53	33.35	43.19
	Vol. flow, actual	acfm	127,708	113,790	106,164	115,887
	Vol. flow, standard*	dscfm	125,298	114,709	112,234	117,413
	Isokinetic variation	%	99.5	97.5	91.6	96.2
	Process rate (specify units)	tons/hr	90.8	90.8	90.8	90.8
Indicate basis for process rate:		tons coke produced				
	Pollutant mass:					
	Filterable PM	grams	0.0069	0.0038	0.0222	1.10E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0021	0.0013	**0.0103**	0.0046
	PM-10	% of PM	78.4%	96.8%	**94.2%**	89.8%
	THC as propane	ppmdv	2.2	1.7	1.4	1.78E+00
	SO2	ppmdv	9.2	7.3	13.3	9.93E+00
	CO2	% vol.	0.0	0.0	0.0	0.00E+00
	NOx	ppmdv	1.8	0.9	0.5	1.07E+00
	CO	ppmdv	1.9	7.9	5.3	5.03E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.26E+00	1.27E+00	**9.88E+00**	4.47E+00
	PM-10	lb/hr	1.77E+00	1.23E+00	**9.31E+00**	4.10E+00
	THC as propane	lb/hr	1.89E+00	1.36E+00	1.08E+00	1.44E+00
	SO2	lb/hr	1.15E+01	8.35E+00	1.49E+01	1.16E+01
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/hr	1.62E+00	7.40E-01	4.02E-01	9.19E-01
	CO	lb/hr	1.04E+00	3.95E+00	2.59E+00	2.53E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	2.48E-02	1.39E-02	**1.09E-01**	4.92E-02
	PM-10	lb/ton	1.95E-02	1.35E-02	**1.03E-01**	4.52E-02
	THC as propane	lb/ton	2.08E-02	1.50E-02	1.19E-02	1.59E-02
	SO2	lb/ton	1.27E-01	9.19E-02	1.64E-01	1.27E-01
	CO2	lb/ton	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/ton	1.78E-02	8.14E-03	4.43E-03	1.01E-02
	CO	lb/ton	1.14E-02	4.35E-02	2.86E-02	2.78E-02

Bold indicates data that differ from summary table in report
*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Source Category: Coke production

Filename: coke166.xls
Ref. No.: 166
Date: 22-Oct-97
Reviewer: sjs

Facility: Inland Steel Company, Plant #2
Location: East Chicago, IN
Source: #11 Battery (no pushing) DOOR LEAKS
Test date: 1/22/90-2/7/90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #11	Stack temperature'	Deg F	66	36	37	46.3
No pushing	Pressure	in. Hg	29.66	29.92	29.93	29.8
fuel not spec	Moisture	%	0.7	1.0	1.3	1.0
(DOOR LEAKS)	Oxygen	%	20.9	20.9	20.9	20.9
	Gas volume sampled	dscf	22.78	20.60	19.80	21.06
	Vol. flow, actual	acfm	115,922	108,007	103,946	109,292
	Vol. flow, standard*	dscfm	114,544	113,825	109,030	112,467
	Isokinetic variation	%	105.5	96.6	96.9	99.7
	Process rate (specify units)	tons/hr	90.8	90.8	90.8	90.8
Indicate basis for process rate (feed or		tons coke produced				
	Pollutant mass:					
	Filterable PM	grams	0.01	0.0042	0.0222	1.21E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00677	0.00315	0.01730	0.00907
	THC as propane	ppmdv	0.3	1.3	1.3	9.44E-01
	SO2	ppmdv	12.1	1.0	**0.5**	4.53E+00
	CO2	% vol.	0.0	0.0	0.0	0.00E+00
	NOx	ppmdv	**0.05**	0.5	0.1	2.17E-01
	CO	ppmdv	5.8	6.3	5.0	5.70E+00
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.65E+00	3.07E+00	1.62E+01	8.63E+00
	PM-10	% OF PM	100%	100%	100%	100%
	THC as propane	lb/hr	2.09E-01	9.88E-01	9.71E-01	7.23E-01
	SO2	lb/hr	1.38E+01	1.13E+00	**5.43E-01**	5.16E+00
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/hr	**4.10E-02**	4.08E-01	7.81E-02	1.76E-01
	CO	lb/hr	2.90E+00	3.13E+00	2.38E+00	2.80E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	7.33E-02	3.38E-02	1.78E-01	9.50E-02
	PM-10	lb/ton	7.33E-02	3.38E-02	1.78E-01	9.50E-02
	THC as propane	lb/ton	2.30E-03	1.09E-02	1.07E-02	7.96E-03
	SO2	lb/ton	1.52E-01	1.25E-02	**5.98E-03**	5.69E-02
	CO2	lb/ton	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/ton	**4.52E-04**	4.49E-03	8.60E-04	1.93E-03
	CO	lb/ton	3.19E-02	3.44E-02	2.62E-02	3.08E-02

PM-10 is actually filt. PM!!

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT
Bold indicates emissions estimated as one-half of the detection limit
Particulate concentrations for Run 2 does not match concentration shown in the test report.
Concentration calculated from reported PM catch and reported sample volume.

Source Category: Coke production

Filename: coke166.xls
Ref. No.: 166
Date: 22-Oct-97
Reviewer: sjs

Facility: Inland Steel Company, Plant #2
Location: East Chicago, IN
Source: #9 coke battery stack
Test date: 1/22/90-2/7/90

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
Battery #9	Stack temperature	Deg F	508	513	508	509.7
stack	Pressure	in. Hg	29.71	29.71	29.71	29.7
controls not	Moisture	%	11.4	11.1	9.0	10.5
specified	Oxygen	%	12.5	15.0	15.5	14.3
fuel not	Gas volume sampled	dscf	38.01	40.26	38.51	38.93
specified	Vol. flow, actual	acfm	99,560	98,190	95,840	97,863
	Vol. flow, standard*	dscfm	47,777	47,036	47,238	47,350
	Isokinetic variation	%	99.7	107.1	102.1	103.0
	Process rate (specify units)	tons/hr	70.5	77.3	62.6	70.1
Indicate basis for process rate (feed or		tons coal charged				
	Pollutant mass:					
	Filterable PM	grams	0.0593	0.0861	0.0779	7.44E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.0241	0.0330	0.0312	0.0294
	THC as propane	ppmdv	2.1	1.7	1.2	1.63E+00
	SO2	ppmdv	436.8	460.1	447.5	4.48E+02
	CO2	% vol.	3.0	1.5	2.0	2.17E+00
	NOx	ppmdv	87.8	87.8	82.2	8.59E+01
	CO	ppmdv	752.8	764.3	852.4	7.90E+02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	9.86E+00	1.33E+01	1.26E+01	1.19E+01
	PM-10	% of PM	74.3%	46.3%	31.9%	50.8%
	THC as propane	lb/hr	6.77E-01	5.37E-01	3.78E-01	5.30E-01
	SO2	lb/hr	2.08E+02	2.16E+02	2.11E+02	2.11E+02
	CO2	lb/hr	9.82E+03	4.83E+03	6.47E+03	7.04E+03
	NOx	lb/hr	3.00E+01	2.96E+01	2.78E+01	2.91E+01
	CO	lb/hr	1.57E+02	1.57E+02	1.76E+02	1.63E+02
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.40E-01	1.72E-01	2.02E-01	1.71E-01
	PM-10	lb/ton	1.04E-01	7.97E-02	6.44E-02	8.27E-02
	THC as propane	lb/ton	9.60E-03	6.95E-03	6.03E-03	7.53E-03
	SO2	lb/ton	2.95E+00	2.79E+00	3.37E+00	3.04E+00
	CO2	lb/ton	1.39E+02	6.25E+01	1.03E+02	1.02E+02
	NOx	lb/ton	4.26E-01	3.83E-01	4.44E-01	4.18E-01
	CO	lb/ton	2.22E+00	2.03E+00	2.80E+00	2.35E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke167.xls
Ref. No.: 167
Date: 02-Dec-97
Reviewer: bls

Facility: LTV Steel Company
Location: Pittsburgh, PA
Source: 5 combustion stacks (P1,P2,P3S,P3N,P4)
Test date: 8/17-19/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported				
			P1	P2	P3S	P3N	P4
	Stack temperature	Deg F	625	602	723	713	580
	Pressure	in. Hg	29.13	29.13	28.85	28.85	29.03
	Moisture	%	13.6	18.4	20.7	17.8	17.4
	Oxygen	%	12.0	13.0	9.0	9.0	12.0
	Vol. flow, actual	acfm	111,940	105,336	140,601	169,192	161,368
	Vol. flow, standard*	dscfm	45,839	41,611	47,978	60,378	65,673
	Isokinetic variation	%	na	na	na	na	na
	Process rate (specify units)		46.9	46.9	54.7	54.7	64
Indicate basis for process rate: coal charged--backed out from ACCCI comments							
	Pollutant concentrations:						
	CO2	% vol.	5.0	4.0	5.5	5.8	7.0
	NOx	ppmdv	273.0	246.0	393.0	268.0	166.0
	Pollutant mass flux rates:						
	CO2	lb/hr	15703.8	11404.4	18080.4	23994.4	31498.5
	NOx	lb/hr	89.6	73.3	135.1	115.9	78.1
	Emission factors (ENGLISH UNITS):						
	CO2	lb/unit	3.35E+02	2.43E+02	3.31E+02	4.39E+02	4.92E+02
	NOx	lb/unit	1.91E+00	1.56E+00	2.47E+00	2.12E+00	1.22E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

Single 2hr test runs on each stack

EMISSION TEST REPORT REVIEW SUMMARY
Source Category: COKE PRODUCTION

Filename: coke168.xls
Ref. No.: 168
Date: 21-Oct-97
Reviewer: bls

Facility: Bethenergy Lackawanna Coke Div.
Location: Lachawanna, NY
Source: Pushing w/FF
Test date: 7/9-11/91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			BE-SD-1	BE-SD-7	BE-SD-11	AVERAGE
1	Stack temperature	Deg F	118.7	114.3	123.8	118.9
	Pressure	in. Hg	29.53	29.54	29.54	29.5
	Moisture	%	2.2	1.9	2.2	2.1
	Oxygen	%	20.9	20.9	20.8	20.9
	Gas volume sampled	dscf	81.96	85.47	80.08	82.50
	Vol. flow, actual	acfm	489,377	515,741	481,356	495,491
	Vol. flow, standard*	dscfm	431,120	459,245	420,320	436,895
	Isokinetic variation	%	102.3	100.2	102.6	101.7
	Process rate (specify units)	tph	122.44	96.67	120.44	113.18
Indicate basis for process rate: TONS COKE PUSHED PER HOUR						
	Pollutant mass:					
	Filterable PM	grams	1.00E-02	1.11E-02	3.90E-03	8.33E-03
	Phenol	grams	1.56E-03	1.00E-03	9.50E-04	1.17E-03
	Ammonia	grams	3.08E-03	1.78E-03	2.95E-03	2.60E-03
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.88E-03	2.00E-03	7.51E-04	1.55E-03
	Phenol	gr/dscf	2.94E-04	1.81E-04	1.83E-04	2.19E-04
	Ammonia	gr/dscf	5.80E-04	3.21E-04	5.68E-04	4.90E-04
	TOC as propane	ppmdv	1.37E+01	1.06E+01	9.50E+00	1.13E+01
	CO2	% vol.	3.00E-01	1.00E-01	1.00E-01	1.67E-01
	CO	ppmdv	1.18E+01	7.30E+00	9.20E+00	9.43E+00
	Benzene	ppmdv	no test	no test	1.95E+00	
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	6.96E+00	7.89E+00	2.71E+00	5.85E+00
	Phenol	lb/hr	1.09E+00	7.11E-01	6.59E-01	8.18E-01
	Ammonia	lb/hr	2.14E+00	1.26E+00	2.05E+00	1.82E+00
	TOC as propane	lb/hr	4.05E+01	3.35E+01	2.74E+01	3.38E+01
	CO2	lb/hr	8.86E+03	3.15E+03	2.88E+03	4.96E+03
	CO	lb/hr	2.22E+01	1.46E+01	1.69E+01	1.79E+01
	Benzene	lb/hr	no test	no test	9.96E+00	3.32E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	5.68E-02	8.16E-02	2.25E-02	5.36E-02
	Condensable inorg. PM	lb/unit	8.86E-03	7.35E-03	5.48E-03	7.23E-03
	Condensable org. PM	lb/unit	1.75E-02	1.31E-02	1.70E-02	1.59E-02
	TOC as propane	lb/unit	3.31E-01	3.46E-01	2.27E-01	3.01E-01
	CO2	lb/unit	7.24E+01	3.26E+01	2.39E+01	4.29E+01
	CO	lb/unit	1.81E-01	1.51E-01	1.40E-01	1.57E-01
	Benzene	lb/unit	no test	no test	8.27E-02	2.76E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: COKE PRODUCTION

Filename: coke168.xls
Ref. No.: 168
Date: 21-Oct-97
Reviewer: bls

Facility: Bethenergy Lackawanna Coke Div.
Location: Lachawanna, NY
Source: Pushing w/FF
Test date: 7/9-11/91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			BE-SD-3	BE-SD-5	BE-SD-9	AVERAGE
2	Stack temperature	Deg F	109.5	107.5	108.3	108.4
	Pressure	in. Hg	29.54	29.65	29.54	29.6
	Moisture	%	2.5	2.9	3.1	2.8
	Oxygen	%	20.9	20.9	20.8	20.9
	Gas volume sampled	dscf	26.76	26.38	26.12	26.42
	Vol. flow, actual	acfm	497,046	500,767	486,365	494,726
	Vol. flow, standard*	dscfm	443,553	448,179	432,306	441,346
	Isokinetic variation	%	90.2	95.2	97.1	94.2
	Process rate (specify units)	tph	122.44	96.67	120.44	113.184707
Indicate basis for process rate: TONS COKE PUSHED PER HOUR						
	Pollutant mass:					
	PM-10	grams	1.00E-03	1.40E-03	4.00E-04	9.33E-04
	Cyanide	grams	1.00E-05	5.00E-05	4.00E-05	3.33E-05
	Pollutant concentrations:					AVERAGE
	PM-10	gr/dscf	5.77E-04	8.19E-04	2.36E-04	5.44E-04
	Cyanide	gr/dscf	5.77E-06	2.92E-05	2.36E-05	1.95E-05
	CO2	% vol.	3.00E-01	1.00E-01	1.00E-01	1.67E-01
	Benzene	ppmdv	4.93E+01	1.95E+00	no test	
	Pollutant mass flux rates:					AVERAGE
	PM-10	lb/hr	2.19E+00	3.15E+00	8.76E-01	2.07E+00
	Cyanide	lb/hr	2.19E-02	1.12E-01	8.76E-02	7.39E-02
	CO2	lb/hr	9.12E+03	3.07E+03	2.96E+03	5.05E+03
	Benzene	lb/hr	2.66E+02	1.06E+01		1.38E+02
	Emission factors (ENGLISH UNITS):					AVERAGE
	PM-10	lb/unit	1.79E-02	3.25E-02	7.27E-03	1.92E-02
	Cyanide	lb/unit	1.79E-04	1.16E-03	7.27E-04	6.89E-04
	CO2	lb/unit	7.45E+01	3.18E+01	2.46E+01	4.36E+01
	Benzene	lb/unit	2.17E+00	1.10E-01		1.14E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: COKE PRODUCTION

Filename: coke168.xls
Ref. No.: 168
Date: 21-Oct-97
Reviewer: bls

Facility: Bethenergy Lackawanna Coke Div.
Location: Lachawanna, NY
Source: Pushing w/FF
Test date: 7/9-11/91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			BE-SD-2	BE-SD-8	BE-SD-12	AVERAGE
3	Stack temperature	Deg F	110.5	116.7	116.6	114.6
	Pressure	in. Hg	29.53	29.65	29.54	29.6
	Moisture	%	2.0	1.8	2.2	2.0
	Oxygen	%	20.8	20.8	20.8	20.8
	Gas volume sampled	dscf	56.19	53.19	49.25	52.88
	Vol. flow, actual	acfm	504,552	485,897	491,802	494,084
	Vol. flow, standard*	dscfm	451,522	433,003	434,848	439,791
	Isokinetic variation	%	100.1	98.8	91.2	96.7
	Process rate (specify units)	tph	122.44	96.67	120.44	113.1847066
Indicate basis for process rate: TONS COKE PUSHED PER HOUR						
	Pollutant mass:					
	Naphthalene	grams	0.00089	0.00053	0.00038	6.00E-04
	Acenaphthylene	grams	0.00045	0.00021	0.00015	2.70E-04
	Acenaphthene	grams	BDL	BDL	BDL	0.00E+00
	Fluorene	grams	0.00017	0.00014	0.00009	0.000133333
	Phenanthrene	grams	0.00023	0.00024	0.0002	0.000223333
	Anthracene	grams	0.00006	0.00005	0.00006	5.66667E-05
	Fluoranthene	grams	0.00015	0.00012	0.00011	0.000126667
	Pyrene	grams	0.00027	0.00019	0.00021	0.000223333
	Benz(a)anthracene	grams	0.0000048	0.0000098	0.0000078	7.46667E-06
	Chrysene	grams	0.0000008	0.0000018	0.0000018	1.46667E-06
	Benzo(b)fluoranthene	grams	BDL	BDL	BDL	0
	Benzo(k)fluoranthene	grams	BDL	0.0000009	0.0000019	9.33333E-07
	Benzo(a)pyrene	grams	BDL	BDL	BDL	0
	Dibenz(a,h)anthracene	grams	0.0000005	0.0000005	0.0000002	0.0000004
	Benzo(g,h,i)perylene	grams	BDL	BDL	0.0000002	6.66667E-08
	Indeno(1,2,3-cd)pyrene	grams	0.0000002	BDL	0.0000002	1.33333E-07
	Pollutant concentrations:					AVERAGE
Bold indicates Below Detection Limit	Naphthalene	gr/dscf	0.000244406	0.00015374	0.000119049	1.72E-04
	Acenaphthylene	gr/dscf	0.000123576	6.09159E-05	4.6993E-05	7.72E-05
	Acenaphthene	gr/dscf	**0.00000005**	**0.00000005**	**0.00000005**	5.00E-08
	Fluorene	gr/dscf	4.66843E-05	4.06106E-05	2.81958E-05	3.85E-05
	Phenanthrene	gr/dscf	6.31612E-05	6.96182E-05	6.26574E-05	6.51E-05
	Anthracene	gr/dscf	1.64768E-05	1.45038E-05	1.87972E-05	1.66E-05
	Fluoranthene	gr/dscf	4.11921E-05	3.48091E-05	3.44615E-05	3.68E-05
	Pyrene	gr/dscf	7.41457E-05	5.51144E-05	6.57902E-05	6.50E-05
	Benz(a)anthracene	gr/dscf	1.31815E-06	2.84274E-06	2.44364E-06	2.20E-06
	Chrysene	gr/dscf	2.19691E-07	5.22136E-07	5.63916E-07	4.35E-07
	Benzo(b)fluoranthene	gr/dscf	**0.00000005**	**0.00000005**	**0.00000005**	5.00E-08
	Benzo(k)fluoranthene	gr/dscf	**0.00000005**	2.61068E-07	5.95245E-07	3.02E-07
	Benzo(a)pyrene	gr/dscf	**0.00000005**	**0.00000005**	**0.00000005**	5.00E-08
	Dibenz(a,h)anthracene	gr/dscf	1.37307E-07	1.45038E-07	6.26574E-08	1.15E-07
	Benzo(g,h,i)perylene	gr/dscf	**0.00000005**	**0.00000005**	6.26574E-08	5.42E-08
	Indeno(1,2,3-cd)pyrene	gr/dscf	5.49228E-08	**0.00000005**	6.26574E-08	5.59E-08
	Pollutant mass flux rates:					AVERAGE
Bold indicates Below Detection Limit	Naphthalene	lb/hr	9.46E-01	5.71E-01	4.44E-01	6.53E-01
	Acenaphthylene	lb/hr	4.78E-01	2.26E-01	1.75E-01	2.93E-01
	Acenaphthene	lb/hr	**1.94E-04**	**1.86E-04**	**1.86E-04**	1.88E-04
	Fluorene	lb/hr	1.81E-01	1.51E-01	1.05E-01	1.45E-01
	Phenanthrene	lb/hr	2.44E-01	2.58E-01	2.34E-01	2.45E-01
	Anthracene	lb/hr	6.38E-02	5.38E-02	7.01E-02	6.26E-02
	Fluoranthene	lb/hr	1.59E-01	1.29E-01	1.28E-01	1.39E-01
	Pyrene	lb/hr	2.87E-01	2.05E-01	2.45E-01	2.46E-01
	Benz(a)anthracene	lb/hr	5.10E-03	1.06E-02	9.11E-03	8.25E-03
	Chrysene	lb/hr	8.50E-04	1.94E-03	2.10E-03	1.63E-03
	Benzo(b)fluoranthene	lb/hr	**1.94E-04**	**1.86E-04**	**1.86E-04**	1.88E-04
	Benzo(k)fluoranthene	lb/hr	**1.94E-04**	9.69E-04	2.22E-03	1.13E-03
	Benzo(a)pyrene	lb/hr	**1.94E-04**	**1.86E-04**	**1.86E-04**	1.88E-04
	Dibenz(a,h)anthracene	lb/hr	5.31E-04	5.38E-04	2.34E-04	4.34E-04
	Benzo(g,h,i)perylene	lb/hr	**1.94E-04**	**1.86E-04**	2.34E-04	2.04E-04
	Indeno(1,2,3-cd)pyrene	lb/hr	2.13E-04	**1.86E-04**	2.34E-04	2.11E-04
	Emission factors (ENGLISH UNITS):					AVERAGE
Bold indicates Below Detection Limit	Naphthalene	lb/unit	7.73E-03	5.90E-03	3.68E-03	5.77E-03
	Acenaphthylene	lb/unit	3.91E-03	2.34E-03	1.45E-03	2.57E-03
	Acenaphthene	lb/unit	**1.59E-06**	**1.92E-06**	**1.55E-06**	1.68E-06
	Fluorene	lb/unit	1.48E-03	1.56E-03	8.73E-04	1.30E-03
	Phenanthrene	lb/unit	2.00E-03	2.67E-03	1.94E-03	2.20E-03
	Anthracene	lb/unit	5.21E-04	5.57E-04	5.82E-04	5.53E-04
	Fluoranthene	lb/unit	1.30E-03	1.34E-03	1.07E-03	1.23E-03
	Pyrene	lb/unit	2.34E-03	2.12E-03	2.04E-03	2.17E-03
	Benz(a)anthracene	lb/unit	4.17E-05	1.09E-04	7.56E-05	7.55E-05
	Chrysene	lb/unit	6.94E-06	2.00E-05	1.75E-05	1.48E-05
	Benzo(b)fluoranthene	lb/unit	**1.59E-06**	**1.92E-06**	**1.55E-06**	1.68E-06
	Benzo(k)fluoranthene	lb/unit	**1.59E-06**	1.00E-05	1.84E-05	1.00E-05
	Benzo(a)pyrene	lb/unit	**1.59E-06**	**1.92E-06**	**1.55E-06**	1.68E-06
	Dibenz(a,h)anthracene	lb/unit	4.34E-06	5.57E-06	1.94E-06	3.95E-06
	Benzo(g,h,i)perylene	lb/unit	**1.59E-06**	**1.92E-06**	1.94E-06	1.81E-06
	Indeno(1,2,3-cd)pyrene	lb/unit	1.74E-06	**1.92E-06**	1.94E-06	1.86E-06

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke169.xls
Ref. No.: 169
Date: 26-Nov-97
Reviewer: bls

Facility: Shenago Inc.
Location: Neville Island, Pitt., PA
Source: Combustion stack
Test date: 9/20-23/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
No. 1 batt	Stack temperature	Deg F	598.8	605.8	605.1	603.2
	Pressure	in. Hg	29.35	29.37	29.38	29.4
	Moisture	%	16.2	16.7	16.0	16.3
	Oxygen	%	9.5	8.3	7.7	8.5
	Gas volume sampled	dscf	95.07	91.01	89.22	91.76
	Vol. flow, actual	acfm	104,877	99,944	97,605	100,809
	Vol. flow, standard*	dscfm	42,992	40,486	39,910	41,129
	Isokinetic variation	%	95.4	96.9	96.5	96.3
	Process rate	TPH	61	61	61	61
Indicate basis for process rate: coal charged (backed out from ACCCI Efs)						
	Pollutant mass:					
	Filterable PM	grams	0.0301	0.0164	0.0150	0.0205
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00489	0.00279	0.00259	0.00342
	CO2	% vol.	4.8	5.5	5.8	5.4
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.80E+00	9.67E-01	8.84E-01	1.22E+00
	CO2	lb/hr	1.42E+04	1.53E+04	1.59E+04	1.51E+04
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	0.0295	0.0158	0.0145	0.0200
	CO2	lb/unit	233	250	261	248

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke170.xls
Ref. No.: 170
Date: 26-Nov-97
Reviewer: bls

Facility: Koppers Industries
Location: Monessen, PA
Source: Batteries 1B &2 Pushing w/FF
Test date: 9/20-23/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	88.8	83.5	74.2	82.2
	Pressure	in. Hg	29.56	29.2	29.36	29.4
	Moisture	%	2.0	2.2	1.5	1.9
	Oxygen	%	21.0	21.0	21.0	21.0
	Gas volume sampled	dscf	37.95	36.64	38.14	37.58
	Vol. flow, actual	acfm	124,629	121,357	122,769	122,918
	Vol. flow, standard*	dscfm	116,093	112,528	117,287	115,303
	Isokinetic variation	%	104.4	104.0	103.8	104.1
	Process rate (specify units)		460	460	460	460
Indicate basis for process rate: coal charged (backed out using ACCCI EFs)						
	Pollutant mass:					
	Filterable PM	grams	.00148 ~~11.48~~	.00958 ~~9.58~~	0.00363 ~~3.63~~	8.23E+00
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	4.668240875	4.034041973	1.46867609	3.39E+00
	TOC as propane	ppmdv	1.4	1.0	1.6	1.34E+00
	CO2	% vol.	0.0	0.0	0.0	0.00E+00
	NOx	ppmdv	8.9	12.6	8.7	1.00E+01
	CO	ppmdv	35.1	48.5	42.8	4.21E+01
	Pollutant mass flux rates:		4.65 E+00	3.89 E+00	1.48 E+00	AVERAGE
	Filterable PM	lb/hr	~~4.65E+03~~	~~3.89E+03~~	~~1.48E+03~~	3.34 ~~E+03~~
	TOC as propane	lb/hr	1.13E+00	7.79E-01	1.28E+00	1.06E+00
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/hr	7.36E+00	1.01E+01	7.28E+00	8.25E+00
	CO	lb/hr	1.78E+01	2.38E+01	2.19E+01	2.11E+01
	Emission factors (ENGLISH UNITS):		-2	-3	-3	AVERAGE -3
	Filterable PM	lb/unit	1.01E~~+01~~	8.46E~~+00~~	3.21E~~+00~~	7.26E~~+00~~
	TOC as propane	lb/unit	2.46E-03	1.69E-03	2.78E-03	2.31E-03
	CO2	lb/unit	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	NOx	lb/unit	1.60E-02	2.20E-02	1.58E-02	1.79E-02
	CO	lb/unit	3.86E-02	5.17E-02	4.75E-02	4.60E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke170.xls
Ref. No.: 170
Date: 26-Nov-97
Reviewer: bls

Facility: Koppers Industries
Location: Monessen, PA
Source: Battery 1B combustion stack
Test date: 9/20-23/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	607.7	602.2	606.4	605.4
	Pressure	in. Hg	29.42	29.42	29.42	29.4
	Moisture	%	16.5	17.9	17.9	17.4
	Oxygen	%	11.7	12.3	12.0	12.0
	Gas volume sampled	dscf	91.92	90.19	76.48	86.20
	Vol. flow, actual	acfm	112,451	111,017	94,771	106,080
	Vol. flow, standard*	dscfm	45,658	44,549	37,880	42,696
	Isokinetic variation	%	106.3	106.9	106.5	106.6
	Process rate (specify units)		43.5	43.5	43.5	43.5
Indicate basis for process rate: coal charged (backed out using ACCCI EFs)						
	Pollutant mass:					
	Filterable PM	grams	0.0349	0.0121	0.0129	0.0200
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00586	0.00208	0.00260	0.00351
	TOC as propane	ppmdv	1.0	8.2	4.5	4.56
	CO2	% vol.	5.3	5.7	6.0	5.67
	NOx	ppmdv	364.4	410.4	440.2	405.00
	CO	ppmdv	127.4	534.6	72.6	244.86
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	2.29E+00	7.92E-01	8.46E-01	1.31E+00
	TOC as propane	lb/hr	3.07E-01	2.49E+00	1.18E+00	1.33E+00
	CO2	lb/hr	1.66E+04	1.74E+04	1.56E+04	1.65E+04
	NOx	lb/hr	1.19E+02	1.31E+02	1.19E+02	1.23E+02
	CO	lb/hr	2.54E+01	1.04E+02	1.20E+01	4.71E+01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	5.27E-02	1.82E-02	1.94E-02	3.01E-02
	TOC as propane	lb/unit	7.05E-03	5.73E-02	2.70E-02	3.05E-02
	CO2	lb/unit	3.81E+02	4.00E+02	3.58E+02	3.80E+02
	NOx	lb/unit	2.74E+00	3.01E+00	2.75E+00	2.83E+00
	CO	lb/unit	5.83E-01	2.39E+00	2.76E-01	1.08E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke170.xls
Ref. No.: 170
Date: 26-Nov-97
Reviewer: bls

Facility: Koppers Industries
Location: Monessen, PA
Source: Battery 2 combustion stack
Test date: 9/20-23/93

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	542.5	554.6	562	553.0
	Pressure	in. Hg	29.32	29.3	29.26	29.3
	Moisture	%	13.4	14.7	13.8	14.0
	Oxygen	%	12.7	12.3	11.0	12.0
	Gas volume sampled	dscf	69.86	61.91	73.76	68.51
	Vol. flow, actual	acfm	53,721	48,632	50,941	51,098
	Vol. flow, standard*	dscfm	24,011	21,141	22,186	22,446
	Isokinetic variation	%	90.9	91.4	103.9	95.4
	Process rate (specify units)		17.5	17.5	17.5	17.5
Indicate basis for process rate: coal charged (backed out using ACCCI EFs)						
	Pollutant mass:					
	Filterable PM	grams	0.0235	0.0121	0.0778	0.0378
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00520	0.00302	0.01626	0.00816
	TOC as propane	ppmdv	15.4	16.2	13.0	14.85
	CO2	% vol.	4.5	4.0	5.0	4.50
	NOx	ppmdv	362.5	356.3	439.3	386.04
	CO	ppmdv	217.7	12.7	35.3	88.55
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.07E+00	5.46E-01	3.09E+00	1.57E+00
	TOC as propane	lb/hr	2.53E+00	2.35E+00	1.97E+00	2.28E+00
	CO2	lb/hr	7.40E+03	5.79E+03	7.60E+03	6.93E+03
	NOx	lb/hr	6.24E+01	5.40E+01	6.98E+01	6.20E+01
	CO	lb/hr	2.28E+01	1.17E+00	3.42E+00	9.12E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	6.11E-02	3.12E-02	1.77E-01	8.97E-02
	TOC as propane	lb/unit	1.45E-01	1.34E-01	1.13E-01	1.30E-01
	CO2	lb/unit	4.23E+02	3.31E+02	4.34E+02	3.96E+02
	NOx	lb/unit	3.56E+00	3.08E+00	3.99E+00	3.55E+00
	CO	lb/unit	1.30E+00	6.68E-02	1.95E-01	5.21E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: coke production

Filename: coke171.xls
Ref. No.: 171
Date: 02-Dec-97
Reviewer: bls

Facility: Shenago, Neville Island
Location: Pittsburgh, PA
Source: No. 1 push shed w/FF
Test date: 1/18-20/88

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	67.7	59.2	82.4	69.8
	Pressure	in. Hg	29.1	29.53	28.79	29.1
	Moisture	%	1.1	0.2	1.1	0.8
	Oxygen	%	20.9	20.9	20.9	20.9
	Gas volume sampled	dscf	61.64	64.35	58.05	61.35
	Vol. flow, actual	acfm	331,055	320,932	318,752	323,580
	Vol. flow, standard*	dscfm	318,524	321,377	295,406	311,769
	Isokinetic variation	%	93.4	96.6	94.9	95.0
	Process rate (specify units)		557	557	557	557
Indicate basis for process rate: coal charged (backed out from ACCCI Efs)						
	Pollutant mass:					
	Filterable PM	grams	0.0169	0.0150	0.0104	0.0141
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	0.00423	0.00358	0.00276	0.00353
	CO2	% vol.	0.0	0.0	0.0	0
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	1.15E+01	9.87E+00	7.00E+00	9.47E+00
	CO2	lb/hr	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	2.07E-02	1.77E-02	1.26E-02	1.70E-02
	CO2	lb/unit	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke172.xls
Ref. No.: 172
Date: 22-Oct-97
Reviewer: bls

Facility: Bethlehem Steel
Location: Bethlehem, PA
Source: Coal crusher with rotoclone
Test date: 12/2-4/91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	55.9	58.3	54.9	56.4
	Pressure	in. Hg	30.09	29.61	29.92	29.9
	Moisture	%	1.5	1.5	1.1	1.4
	Oxygen	%	21.0	20.8	20.9	20.9
	Gas volume sampled	dscf	76.38	68.07	68.83	71.09
	Vol. flow, actual	acfm	43,266	44,105	44,615	43,995
	Vol. flow, standard*	dscfm	43,864	43,789	45,233	44,295
	Isokinetic variation	%	105.9	102.4	100.2	102.8
	Process rate (specify units)	tph	179.5	186.3	186.7	184.166667
Indicate basis for process rate (feed or production): wet coal throughput						
	Pollutant mass:					
	Filterable PM	grams	1.31E-01	1.12E-01	1.22E-01	1.21E-01
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	2.64E-02	2.53E-02	2.73E-02	2.63E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	9.92E+00	9.50E+00	1.06E+01	1.00E+01
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	5.53E-02	5.10E-02	5.68E-02	5.43E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke172.xls
Ref. No.: 172
Date: 22-Oct-97
Reviewer: bls

Facility: Bethlehem Steel
Location: Bethlehem, PA
Source: Coke screening station
Test date: 12/4-5/91

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	51.1	50.4	54.6	52.0
	Pressure	in. Hg	29.59	30.65	30.63	30.3
	Moisture	%	1.2	0.5	1.3	1.0
	Oxygen	%	21.0	21.0	21.0	21.0
	Gas volume sampled	dscf	53.86	60.98	62.46	59.10
	Vol. flow, actual	acfm	33,590	31,546	32,910	32,682
	Vol. flow, standard*	dscfm	33,906	33,260	34,115	33,760
	Isokinetic variation	%	106.6	105.5	105.3	105.8
	Process rate (specify units)	tph	186.7	181.7	181.7	183.366667
Indicate basis for process rate (feed or production): wet coal throughput						
	Pollutant mass:					
	Filterable PM	grams	4.28E-02	2.48E-02	9.10E-02	5.29E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	1.23E-02	6.28E-03	2.25E-02	1.37E-02
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	3.56E+00	1.79E+00	6.57E+00	3.98E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/unit	1.91E-02	9.85E-03	3.62E-02	2.17E-02

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

EMISSION TEST REPORT REVIEW SUMMARY

Source Category: Coke Production

Filename: coke176.xls
Ref. No.: 176
Date: 28-Oct-97
Reviewer: bls

Facility: Erie Coke Corporation
Location: Erie, PA
Source: Combustion stack
Test date: 08-Aug-96

Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	AVERAGE
	Stack temperature	Deg F	472	477	474	474.3
	Pressure	in. Hg	29.64	29.64	29.64	29.6
	Moisture	%	12.6	13.2	12.5	12.8
	Oxygen	%	18.1	13.7	14.7	15.5
	Gas volume sampled	dscf	59.28	59.25	58.28	58.94
	Vol. flow, actual	acfm	43,100	43,200	41,800	42,700
	Vol. flow, standard*	dscfm	21,141	20,932	20,483	20,852
	Isokinetic variation	%	97.4	98.4	98.8	98.2
	Process rate (specify units)		34.7	34.7	34.7	34.7
Indicate basis for process rate: coal charged Backed out from ACCT comments						
	Pollutant mass:					
	Filterable PM	grams	1.14E-01	8.17E-02	7.45E-02	9.01E-02
	Pollutant concentrations:					AVERAGE
	Filterable PM	gr/dscf	2.97E-02	2.13E-02	1.97E-02	2.36E-02
	TOC as propane	ppmdv	1.49E+02	1.38E+02	1.61E+02	1.49E+02
	CO2	% vol.	3.70E+00	3.60E+00	3.60E+00	3.63E+00
	NOx	ppmdv	1.19E+02	1.22E+02	1.18E+02	1.20E+02
	TOC as propane	ppmdv	1.49E+02	1.38E+02	1.61E+02	1.49E+02
	Methane as propane	ppmdv	8.03E+01	7.67E+01	7.37E+01	7.69E+01
	Ethane as propane	ppmdv	4.00E+00	4.00E+00	4.00E+00	4.00E+00
	VOC as propane	ppmdv	6.51E+01	5.70E+01	8.29E+01	6.83E+01
	Pollutant mass flux rates:					AVERAGE
	Filterable PM	lb/hr	5.38E+00	3.82E+00	3.46E+00	4.22E+00
	TOC as propane	lb/hr	2.16E+01	1.97E+01	2.25E+01	2.13E+01
	CO2	lb/hr	5.36E+03	5.16E+03	5.05E+03	5.19E+03
	NOx	lb/hr	1.80E+01	1.83E+01	1.73E+01	1.79E+01
	Methane (as methane)	lb/hr	1.27E+01	1.20E+01	1.13E+01	1.20E+01
	Ethane (as ethane)	lb/hr	5.93E-01	5.87E-01	5.74E-01	5.84E-01
	VOC as propane	lb/hr	9.43E+00	8.18E+00	1.16E+01	9.75E+00
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.55E-01	1.10E-01	9.98E-02	1.22E-01
	TOC as propane	lb/ton	6.24E-01	5.69E-01	6.50E-01	6.14E-01
	CO2	lb/ton	1.54E+02	1.49E+02	1.46E+02	1.50E+02
	NOx	lb/ton	5.18E-01	5.28E-01	4.99E-01	5.15E-01
	Methane (as methane)	lb/ton	3.66E-01	3.46E-01	3.25E-01	3.46E-01
	Ethane (as ethane)	lb/ton	1.71E-02	1.69E-02	1.65E-02	1.68E-02
	VOC as propane	lb/ton	2.72E-01	2.36E-01	3.35E-01	2.81E-01

*DSCFM BASED ON A STANDARD TEMPERATURE OF 68 DEGREES FAHRENHEIT

To: Brain Shrager

From: Anthony Saltis

RE: Coke Oven Reports

Date: 9/27/97

Attached are the bibliographies and calculation sheets for the coke oven reports reviewed. An electronic copy of bibliographies and review data is located at F:\share\towp\coke\

Most reports contained enough information to receive a grade from the review process. However, the entries in Table 4-1 do not contain enough information to be of use for emission factors. Primarily, the process data missing was the tons/hr of coal feed or coke production.

TABLE 4-1. SUMMARY OF TEST REPORTS NOT USED

Reference No.	Explanation for excluding report
52	insufficient process data
53	insufficient process data
54	insufficient process data
83	insufficient process data
68	insufficient process data
79	insufficient process data
55	duplicate reviewed by Brain Shrager (use?)

General assumptions made in the review process were:

1) Batteries operated on Natural Gas - Most reports did not state the fuel consumed, but most had strip charts labeled as "GP". The assumption made was GP stands for gas pressure.

2) Coke oven production rates of tons per hour were calculated by

$$\text{coke produced tons/hr} = \frac{\text{\# of ovens pushed during test} \times \text{tons of coke/oven}}{\text{time of testing program}}$$

Also enclosed are, data sheets that contain information from reports (7 in all) that performed a back-half chloroform extract in combination with PA DEP particulate emission evaluation. This information is enclosed for the possibility of updating PA DEP reports acceptable for determining emission factors.

PA DEP particulate emission test procedure for the back-half impinger solutions is as follows:

1) Back-half water rinses and first three impinger solutions will be combined and filtered. The insoluble material is weighed and recorded as INSOLUBLE BACK-HALF.

2) The remain water after filtration is then extracted with chloroform and ethyl ether. Extracts are dried, weighed and recorded as CHLOROFORM / ETHYL ETHER EXTRACT.

3) The extracts are submitted for sulfate analysis.

4) The remaining back-half and impinger water rinse is then dried weighed and recorded as SOLUBLE PORTION OF BACK_HALF H2O RINSE.

5) The impingers are then rinsed with acetone. The acetone rinses are dried, weighed, and recorded as SOLUBLE PORTION OF BACK_HALF ACETONE RINSE.

At present the reports that perform chloroform extract are reviewed using the front-half information only. Updating these spreadsheets is just a matter of entering the data from the attached sheets. I did not include this data because of the first step which involved filtration of the insoluble matter in the impingers. PA DEP uses this filtered matter to calculated method 5 particulate emission. The spreadsheets produced in this review process do not include this back-half catch in emission calculations.

If you need any information/reports in my absence all coke oven materials are on the bottom shelf of my bookcase.