Note: This is a reference cited in *AP 42, 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 reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

AP-42 Section 12.2
Reference
Report Sect. 4
Reference 117

REPORT OF EMISSION TEST

#18 COKE OVEN BATTERY COMBUSTION STACK

FRANKLIN COKE PLANT

Test Date: September 28, 1978

Bethlehem Steel Corporation
Johnstown, PA

Particulate emission testing was conducted at the #18 coke oven battery combustion stack as specified in the Coke Oven Emission Abatement Plan currently being negotiated. The test was conducted in a manner consistent with the requirements of 25 Pa. Code Chapter 139 in order to demonstrate compliance with 25 Pa. Code § 123.13(c) (i.e., 0.04 gr/scfd).

The test was conducted on September 28, 1978, and was observed by R. D. Roller, PaDER Technical Services, Harrisburg, PA. G. L. Swayne, PaDER, Air Pollution Control Engineer, Ebensburg, PA, recorded battery operating data and A. J. Majer, PaDER, Air Pollution Control Engineer, Ebensburg, PA, recorded stack opacity for the duration of the test.

The proposed emission test procedure, dated September 14, 1978, indicated that two simultaneous tests would be conducted. Test "A" was to utilize a standard EPA Method 5 sampling train and Test "B" was to employ a modified train identical to the train used for Test "A", except that an in-stack filter would be used in addition to the out-of-stack filter. However, Test "B" was aborted due to a fracture in the glass probe liner which prevented an acceptable leak check. Test "A" was successfully completed and yielded a grain loading of 0.023 gr/scfd, as measured by the front half of the sampling train plus the insoluble portion of the impinger catch.

Process Description

No. 18 Coke Oven Battery is a single collector main,

by-product battery, containing 77 slot-type ovens and having a rated capacity of 1230 net tons of coke per day. A process flow schematic is shown in Appendix "B". Premixed high and low volatile coal is charged into the ovens and, under normal conditions, allowed to "coke" for approximately 18 hours. The ovens are indirectly fired with undesulfurized coke oven gas which exhausts by natural draft through the combustion stack. The stack discharge is 11 feet in diameter and 250 feet above grade.

Operating Conditions

No. 18 Coke Oven Battery was operating at normal capacity during the emission testing period. The average coking time was 18 hours, 7 minutes. Additional operating data are presented in Appendix "B".

Test Equipment and Procedure

Testing was performed in conformance with the requirements of Method 5 - Determination of Particulate Emissions from Stationary Sources, published in the Appendix to the Standards of Performance for New Stationary Sources, promulgated by the United States Environmental Protection Agency. The sampling equipment was manufactured by Glass Innovations, Inc. Calibration dates are as follows:

Dry Gas Meter	-	7/3/78
Orifice		7/3/78
Nozzle		9/22/78
Thermocouples		9/22/78

The pitot tube-sample probe assembly is constructed in conformance with the design specifications of EPA Method 2 and as such, was assigned a base line coefficient of 0.84.

Testing was conducted at sampling ports located 102' above grade. The inside diameter of the stack at the sampling location is 12'5-5/8". Six traverse points per diameter were sampled for 10 minutes per point. The locations of the traverse points on each radius with respect to the inside stack wall are as follows:

Traverse Point	Location (inches)
1	6.6
2	21.8
3	44.3

Due to low velocities in the stack, velocity pressures were determined using a one inch manometer having 0.005 inch divisions. The sampling probe, consisting of a one-half inch stainless steel nozzle and a glass liner, was connected directly to the inlet of the filter holder.

An initial sampling train leak check was conducted at a vacuum equal to 10" Hg. Subsequent leak checks were conducted at a vacuum higher than the maximum vacuum obtained during testing. All leak checks were below the 0.02 cfm limit.

The dry gas molecular weight was determined using an Orsat gas analyzer. Three individual gas samples were obtained and analyzed. The average results of the analyses are 6.0% CO_2, 3.5% O_2, 0.6% CO, and 89.9% N_2.

Sample Recovery and Laboratory Analysis

Sample recovery and analyses were performed in accordance with the Commonwealth of Pennsylvania 1978 "Source Testing Manual." The weights of material collected in each portion of

the sampling train were determined individually. Results of all analyses are presented in Appendix "A".

The anticipated hygroscopic nature of the filter particulate necessitated a modification of the balance weighing chamber in order to obtain an accurate sample weight. One side door of the balance was removed and replaced with an acetate sheet having a slot large enough to allow a filter to be placed on the balance. Compressed air was dried by passing through two impingers containing silica gel and introduced into the weighing chamber, thereby creating a slightly positive pressure. The filter was oven-dried at 105° C, transported to the modified balance in a hot petri dish and weighed immediately both before and after sampling.

Conclusion

Based on the front half plus the back half insoluble particulate catch, emissions from the No. 18 Coke Oven Battery Combustion Stack were demonstrated to be in compliance with 25 Pa. Code § 123.13(c). A summary of the emission test results is presented in Appendix "A".

APPENDIX "A"

Exhibit I-A	Summary of Test Results
Exhibit II-A	Orsat Analysis
Exhibit III-A	Velocity Traverse
Exhibit IV-A	Field Data Sheets
Exhibit V-A	Laboratory Data Sheet
Exhibit VI-A	Calculation Sheets
Exhibit VII-A	Stack Drawing

EXHIBIT I-A

Summary of Test Results

Concentration-Front Half + Back Half Insoluble (gr/scfd)	- 0.023
Emission Rate-Front Half + Back Half Insoluble (lb/hr)	11.6
Sample Volume (scfd)	75.089
Volumetric Flow Rate (scfmd)	57,600
Gas Temperature (° F)	598
Moisture Content (%)	15.7
Isokinetic (%)	103.4
Filter Sample Weight (g)	0.0463
Total Front Half Sample Weight (g)	0.1085
Back Half Insoluble Sample Weight (g)	0.0058
Total Back Half Sample Weight (g)	0.2201
Back Half Soluble Sulfates (g)	0.1329
Total Sample Weight (g)	0.3286

EXHIBIT II-A

Orsat Analysis

Burette Readings

	Run #1	Run #2	Run #3	Average
CO_2	6.2	6.0	5.9	6.0
O_2	9.4	9.4	9.6	9.5
CO	10.4	9.8	10.0	10.1

$\% \ CO_2 = 6.0$

$\% \ O_2 = 9.5 - 6.0 = 3.5$

$\% \ CO = 10.1 - 9.5 = 0.6$

$\% \ N_2 = 100 - 10.1 = 89.9$

$$M_d = 0.44\ (6.0) + 0.32\ (3.5) + 0.28\ (0.6) + 0.28\ (89.9)$$

$$M_d = 29.10$$

EXHIBIT III-A

Run No. A

Location Coke Plant
#18 Battery Waste Heat Stack

Date 9/25/78

Stack Dimensions 12'5-5/8" D

Pitot Coefficient 0.84

Operators JEH, JFF

Barometric Pressure 28.78

Static Pressure - 0.90

Schematic of Stack Cross Section

Traverse Pt. No.	Location In.	Velocity Head, ΔP In. H_2O		Stack Temperature °F		$\sqrt{\Delta P}$
E 3	44.3	.042	.042	610	603	
2	21.8	.043	.047	603	605	
1	6.6	.055	.040	602	600	
N 3	44.3	.055	.055	603	604	
2	21.8	.055	.055	634	610	
1	6.6	.055	.045	573	567	
W 3	44.3	.065	.065	604	615	
2	21.8	.065	.065	611	615	
1	6.6	.050	.055	611	602	
S 3	44.3	.050	.055	605	607	
2	21.8	.057	.057	626	627	
1	6.6	.045	.045	625	609	
			Average	607		.229

Velocity Traverse Data

11:12

Operation #13 Batt. WMS
Sampling Meth. EPA #5
Test # 1
Filter Type / # 6F / A

Time
Total Cond.
Meter C.F. 1.006
Operator JEH

	TIME	METER READING Ft.^{3} ST. 133.181	PRESSURE "H_2O PITOT	ORIF.	SYS. VAC. "Hg.	TEMPERATURES DEG. F. STACK	SAMPLE UNIT	ICE BATH EXIT	PROBE	GAS METER INLET	OUTLET	
Post	11:12											
3	5	136.36	.052	1.46	2.5	597	240	67	253	50	48	PRE LEAK ✓ <.02
	10	139.68	.065	1.80	2.9	598	225	42	233	78	69	
2	15	143.04	.060	1.68	2.9	604	225	48	258	76	60	
	20	146.28	.055	1.51	2.7	619	225	50	267	77	61	
1	25	149.30	.050	1.38	2.5	598	227	53	254	76	58	
(84)	30	152.465	.055	1.51	2.6	583	228	40	237	86	71	
	12:13	152.497										
3	5	156.10	.060	1.68	1.9	610	263	50	271	78	67	LEAK ✓ <.0
	10	159.21	.060	1.68	2.0	603	268	43	270	79	68	
2	15	162.73	.065	180	2.5	604	270	50	265	83	70	
	20	166.30	.065	1.80	2.4	602	272	52	256	89	70	
1	25	169.77	.060	1.68	2.1	600	258	51	257	88	71	
(0.561)	30	173.058	.055	1.51	2.0	590	240	49	253	95	74	

TEST DATA FOR: Moisture
NO_x
SO_2

CONTAINER NO.
TIME
TEMP.: Cont.
Amb.

IMP. VOL. 1 100 / 345 2 100 / 122 3 0 / 5 4 200.2 / 224.1
TOTAL VOL. 295.9 ml.

1 of

Cont. Mod. #1

Operation [illegible] Time [illegible]
Sampling Meth. EPA #5 Total Cond.
Test # 1 Meter C.F. 1.006
Filter Type / # GF / A Operator PML, JFF

STATIC -1.0

		METER READING Ft.³	PRESSURE "H_2O		SYS. VAC.	TEMPERATURES DEG. F.						
							SAMPLE	ICE BATH		GAS METER		
T	TIME	ST. 173.134	PITOT	ORIF.	"Hg.	STACK	UNIT	EXIT	PROBE	INLET	OUTLET	
3	5	175.56	.047	1.32	1.9	596	245	40	246	55	53	LEAK ✓ <.02
	10	178.72	.054	1.50	2.3	592	242	42	263	62	53	
2	15	181.96	.052	1.46	2.3	584	225	40	236	61	55	
	20	185.26	.056	1.56	2.5	587	233	40	238	65	64	
1	25	189.42	.050	1.39	2.4	598	260	53	260	78	68	
.015	30	192.149	.047	1.32	2.4	581	261	51	248	60	50	
		192.173										
3	5	195.18	.050	1.39	2.0	598	250	58	245	74	68	LEAK ✓ <.0
	10	198.39	.054	1.50	2.2	604	268	55	242	82	68	
2	15	201.67	.057	1.59	2.5	596	270	52	254	86	69	
	20	204.91	.052	1.46	2.6	604	269	53	254	88	69	
1	25	207.90	.045	1.25	2.5	602	247	51	250	86	70	
	30	210.745	.042	1.17	2.2	598	240	50	245	86	69	
18.572			0.233	1.517		597.83						

77.432 70.

TEST DATA FOR: Moisture
NO_x
SO_2

IMP. VOL. 1 ____ 2 ____ 3 ____ 4 ____

TOTAL VOL. ____ ml.

CONTAINER NO. ____
TIME ____
TEMP.; Cont. ____
Amb. ____

EXHIBIT V

LABORATORY DATA SHEET

Test No.	A
Location	#18 Batt. W.H.S.
Date	9/28/78

I. FRONT HALF ANALYSIS

A. Filter

Final Filter Weight	0.5402	g
Initial Filter Weight	0.4939	g
Sample Weight	0.0463	g

B. Washings

	Acetone		Water	
Volume	160	ml	325	ml
Final Container Weight	85.0825	g	212.4645	g
Initial Container Weight	85.0783	g	212.4025	g
Residue Weight	0.0042	g	0.0620	g
Correction Blank Adjustment	0.0011	g	0.0029	g
Actual Sample Weight	0.0031	g	0.0591	g

C. Total Front Half Sample Weight

0.1085 g

II. BACK HALF ANALYSIS

A. Condensate

	Initial		Final		Difference (+)	
Impinger #1	100	ml	345	ml	245	ml
Impinger #2	100	ml	122	ml	22	ml
Impinger #3	0	ml	5	ml	5	ml
Silica Gel	200.2	g	224.1	g	23.9	g

Total Condensate Collected 295.9 ml

B. Measured Volumes

Distilled Water for Washing	422	ml
Distilled Impinger Water	200	ml
Total Distilled Water	622	ml
Total Back Half Water (Distilled + Condensate)	894	ml
Acetone Washings	152	ml

C. Insoluble Catch

	0.8 μm		0.45 μm		0.2 μm	
Final Filter Weight	0.0513	g	0.0484	g	0.0618	g
Initial Filter Weight	0.0493	g	0.0483	g	0.0618	g
Incremental Sample Wt.	0.0020	g	0.0001	g	0	g
Total Insoluble Sample Weight Filtered					0.0021	g
Volume Filtered					325	ml
Actual Insoluble Sample Weight					0.0058	g

D. Soluble Catch

	Acetone		Water	
Final Container Weight	73.7641	g	206.5992	g
Initial Container Weight	73.7562	g	206.5277	g
Residue Weight	0.0079	g	0.0715	g
Water Volume Evaporated			300	ml
Total Water Soluble Residue Wt.			0.2131	g
Correction Blank Adjustment	0.0011	g	.0056	g
Actual Soluble Sample Weight	0.0068	g	0.2075	g
Soluble Sulfates			0.1329	g

III. CORRECTION BLANKS

Volume of Blank	200	ml	200	ml
Final Container Weight	81.2256	g	198.1776	g
Initial Container Weight	81.2242	g	198.1759	g
Residue Weight	0.0014	g	0.0017	g
Correction Factor	0.0007	g/100 ml	0.0009	g/100 ml

EXHIBIT VI

EPA METHOD NO. 5
CALCULATION SHEETS

Test No.: A

Location: #18 Batt. W.H.S.-Fkl'n Coke Pl.

Test Date: 9/28/78

Calculated By: RML, JFF

1) Volume of Water Collected:

$$Vwc_{std} = (Vfc - Vic)\left(\frac{\rho H_2O}{MH_2O}\right)\left(\frac{T_{std}}{P_{std}}\right) R$$

$$Vwc_{std} = \left(0.0474\ \frac{ft^3}{ml}\right)\left(Vfc - Vic\right) = \left(0.0474\right)\left(696.1 - 400.2\right)$$

Vwc_{std} = 14.026 scf

2) Volume of Air Metered:

$$Vm_{std} = Vm\left(\frac{T_{std}}{Tm}\right)\left(\frac{P_{bar} + \frac{\overline{\Delta H}}{13.6}}{P_{std}}\right)\left(\text{Meter Correction Factor}\right)$$

$$Vm_{std} = \left(77.432\right)\left(\frac{530°}{530}\right)\left(\frac{28.73 + \frac{1.52}{13.6}}{29.92"\ Hg}\right)\left(1.006\right)$$

Vm_{std} = 75.089 scf dry

3) Stack Gas Moisture Content:

$$Bwo = \frac{Vwc_{std}}{Vm_{std} + Vwc_{std}} = \frac{14.026}{75.089 + 14.026} = 0.157$$

$$\% \ H_2O = Bwo \times 100$$

$$\% \ H_2O = \underline{15.7 \ \%}$$

4) Molecular Weight of Dry Gas:

$$Md = \left(\% \ CO_2 \times \frac{44}{100}\right) + \left(\% \ O_2 \times \frac{32}{100}\right) + \left(\% \ CO \times \frac{28}{100}\right) + \left(\% \ N_2 \times \frac{28}{100}\right)$$

$$Md = \left(6.0 \times .44\right) + \left(3.5 \times .32\right) + \left(0.6 \times .28\right) + \left(89.9 \times .28\right)$$

$$Md = 2.64 + 1.12 + 0.17 + 25.17$$

$$Md = \underline{29.10}$$

5) Molecular Weight of Stack Gases:

$$Ms = Md\left(1 - Bwo\right) + 18\left(Bwo\right) = \left(29.1\right)\left(0.843\right) + 18\left(0.157\right)$$

$$Ms = 24.53 + 2.83$$

$$Ms = \underline{27.36}$$

6) Velocity of Exit Gases: (ACTUAL)

$$V_s = Kp \ Cp \sqrt{\frac{Ts}{Ps \ Ms}} \left(\sqrt{\Delta P}\right)_{avg}$$

$$V_s = \left[\left(85.48 \frac{ft}{sec}\right)\left(0.84\right)\right]\sqrt{\frac{(1058)}{(28.66)(27.36)}}\left(0.233\right)$$

$$V_s = \left(71.803\right)\left(1.162\right)\left(0.233\right)$$

$$V_s = \underline{\quad 19.44 \quad} \text{ afps}$$

Where: $Ps = Pbar \pm \frac{Ps'}{13.6} = 28.73 \pm \frac{-1.0}{13.6" \text{ Hg}}$

$$Ps = \underline{\quad 28.66 \quad} \text{ " Hg}$$

7) <u>Total Flow of Stack Gases:</u>

<u>ACTUAL:</u>

$$Qs = As\,V_s \times 60 = \left(122.1\right)\left(19.44\right) \times 60 = \underline{\quad 142,400 \quad} \text{ acfm}$$

<u>STANDARD:</u>

$$Qs_{std} = Qs\left(\frac{Ps}{P_{std}}\right)\left(\frac{T_{std}}{Ts}\right)\left(1 - Bwo\right)$$

$$Qs_{std} = \left(142,400\right)\left(\frac{28.66}{29.92"Hg}\right)\left(\frac{530°}{1058}\right)\left(0.843\right)$$

$$Qs_{std} = \underline{\quad 57,600 \quad} \text{ scfm dry}$$

7b) <u>Velocity of Exit Gases:</u> (<u>STANDARD</u>)

$$V_{s_{std}} = Qs_{std}/As = \left(57,600\right)/\left(122.1\right)$$

$$V_{s_{std}} = \underline{\quad 471.7 \quad} \text{ sfpm}$$

8) Particulate Concentration: (Front Half + Back Half Insoluble)

$$Cs = \left(\frac{Mn}{Vm_{std}}\right)\left(15.43\ \frac{grains}{gram}\right)$$

$$Cs = \left(\frac{0.1143}{75.089}\right) \times 15.43 = \left(0.00152\right) \times 15.43$$

$$Cs = \underline{\quad 0.023 \quad}\ gr/scf\ dry$$

9) Pollutant Mass Rate: (pmr) (Front Half + Back Half Insoluble)

$$pmr = \frac{(Mn)(Qs_{std}) \times 60}{Vm_{std} \times 454\ \frac{grams}{lb.}}$$

$$pmr = \frac{\left(0.1143\right)\left(57{,}600\right) \times 60}{\left(75.089\right) \times 454} = \frac{\left(395020.8\right)}{\left(34{,}090.4\right)}$$

$$pmr = \underline{\quad 11.6 \quad}\ lbs/hr$$

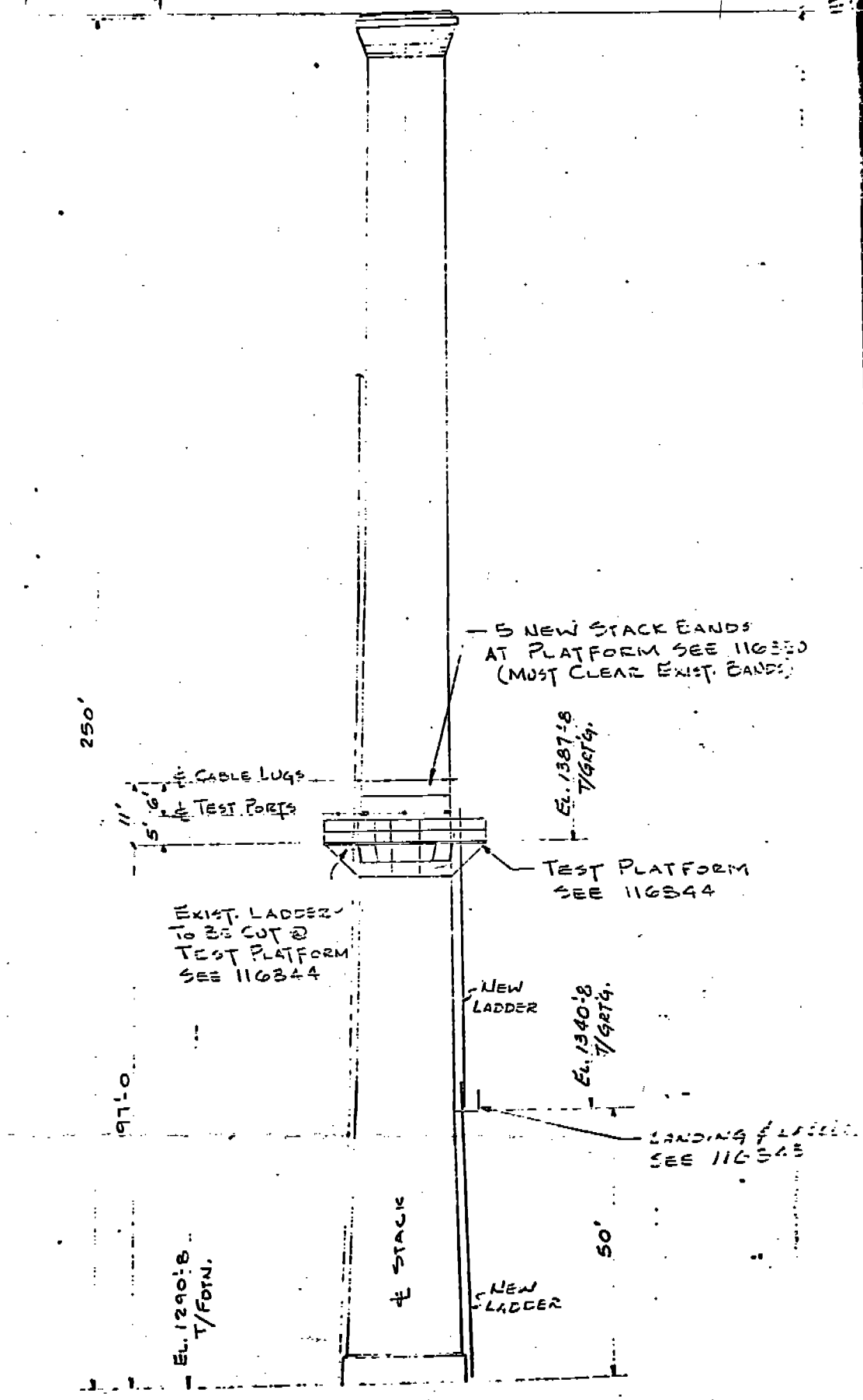
10) Percent Isokinetic:

$$\%\ isokinetic = Vm_{std} \times 100 \Big/ An\ \theta \sqrt{s_{std}}$$

$$\%\ isokinetic = \left(75.089\right) \times 100 \Big/ \left(0.001283\right)\left(120\right)\left(471.7\right)$$

$$\%\ isokinetic = \underline{\quad 103.4 \quad}\ \%$$

EXHIBIT VII-A



APPENDIX "B"

Exhibit I-B	-	Coking Record
Exhibit II-B	-	Daily Production Worksheet
Exhibit III-B	-	Collecting Main Pressure Chart (East End)
Exhibit IV-B	-	Collecting Main Pressure Chart (West End)
Exhibit V-B	-	Coke Oven Gas Consumption Chart
Exhibit VI-B	-	Process Flow Schematic

EXHIBIT II-B

DAILY PRODUCTION WORKSHEET

Replaces Form 21280

9/28/78

	DAILY QUANTITY	%	TO-DATE QUANTITY	%
COAL CARB				
LOW VOLATILE	407		11280	
HIGH VOLATILE	1158		32106	
TOTAL COAL	1565		43386	
COKE	1113		30919	71.26
BREEZE	50	3.19	1437	3.31
SURPLUS	10073		286,169	
TAR STILL				
17 BATTERY				
18 BATTERY	8812		246,118	
19 BATTERY				
WASTED	990		12023	
TOTAL	19875		544310	12.55
TAR PROD/USED	13302	8.50	368781	
REC/SHIPPED I.D.	-		-	
SHIP OUTBOUND	X X X	X X X	X X X X	X X
TAR ACID OIL	-		-	
PITCH	-		-	
AM SULPHATE	29735	19.00	824334	
LIGHT OIL	5321	3.40	147512	
RECEIVED	-		-	
LOSS	-		4531	
CR SOLV NAPH	-		3919	
PRIMARY OIL	-		9167	
BTX	-		73003	

GALLONS

BREEZE

H_2O 20.6 Dry Fractor 79.4

TKS	DES	SIZE	TONS WET	TONS DRY
	SP			
	FM			
	BF			
	PH			

DAILY L		COAL
BAT	LV	
17		22
18		25
19		25
TOT		

WET COAL T/D 46188 = 16.17

TEMP	AMPS		
		66° ACID RECD	TKS
		66° ACID O/H	TONS
2417	210	% VM MIXED COAL	30.1
		% H_2O MIXED COAL	6.4

	SHIP/USED	SHIPPED T/D	ON HAND
	-	-	X X X X X X X X
	-	-	
			X X X X X X X
	-	-	-
	-	-	-
	-	-	
	-		
	X X X X X X	X X X X X X	X X X X X X X
	X X X X X X	X X X X X X	X X X X X X X
	-	-	
	-		
	-		

	OVENS TOT	OVENS OPR	OVENS PUSHED 11-7	7-3	3-11	TOTAL	16.39 COAL WET	DRY	71.1 COKE	COKING TIME GROSS	NET	OVENS PUSHED T/D	COKE PROD T/D	AVG COKE RATE
17	77									:	:			
18	77	77	34	34	34	102	1672	1565	1113	18:07	17:52	2852	30919	110
19	74									:	:			
T	228									:	:			

COKE ON WHEELS	FKLN	RDLE	STOCK	PURCH	AVG	TYPE	ROSEDALE DELAYS:
O/H YESTERDAY							
LOADED + +							
UNLOADED BF							
UNLOADED STOCK							
SHIPPED + +							
O/H TODAY							

CAP	OPER	SCHED	PUSH	COKE -	SURP GAS	COKE T/D	RATE	COKE SUL	COKE ASH	LV STO
LE								Cal.		

EXHIBIT I-B

Coking Record (9/28/78)

Oven No.	Time Pushed	Time Charged	Coking Hr.	Coking Min.
38	1054	1105	17	50
48	1136	1148	18	06
58	1146	1158	18	08
68	1156	1208	17	52
78	1206	1218	18	09
1	1216	1225	18	11
11	1227	1240	18	08
21	1236	1251	17	53
31	1246	1300	17	51
41	1258	1314	17	52
51	1305	1321	17	43
61	1317	1330	17	47
71	1325	1342	17	47
81	1336	1353	17	48
3	1356	1410	18	00
13	1400	1419	18	05
23	1415	1426	18	02
33	1421	1435	18	04
43	1430	1449	17	36
53	1437	--	17	38
63	1454	--	17	31
73	1525	1537	17	53

EXHIBIT III-8

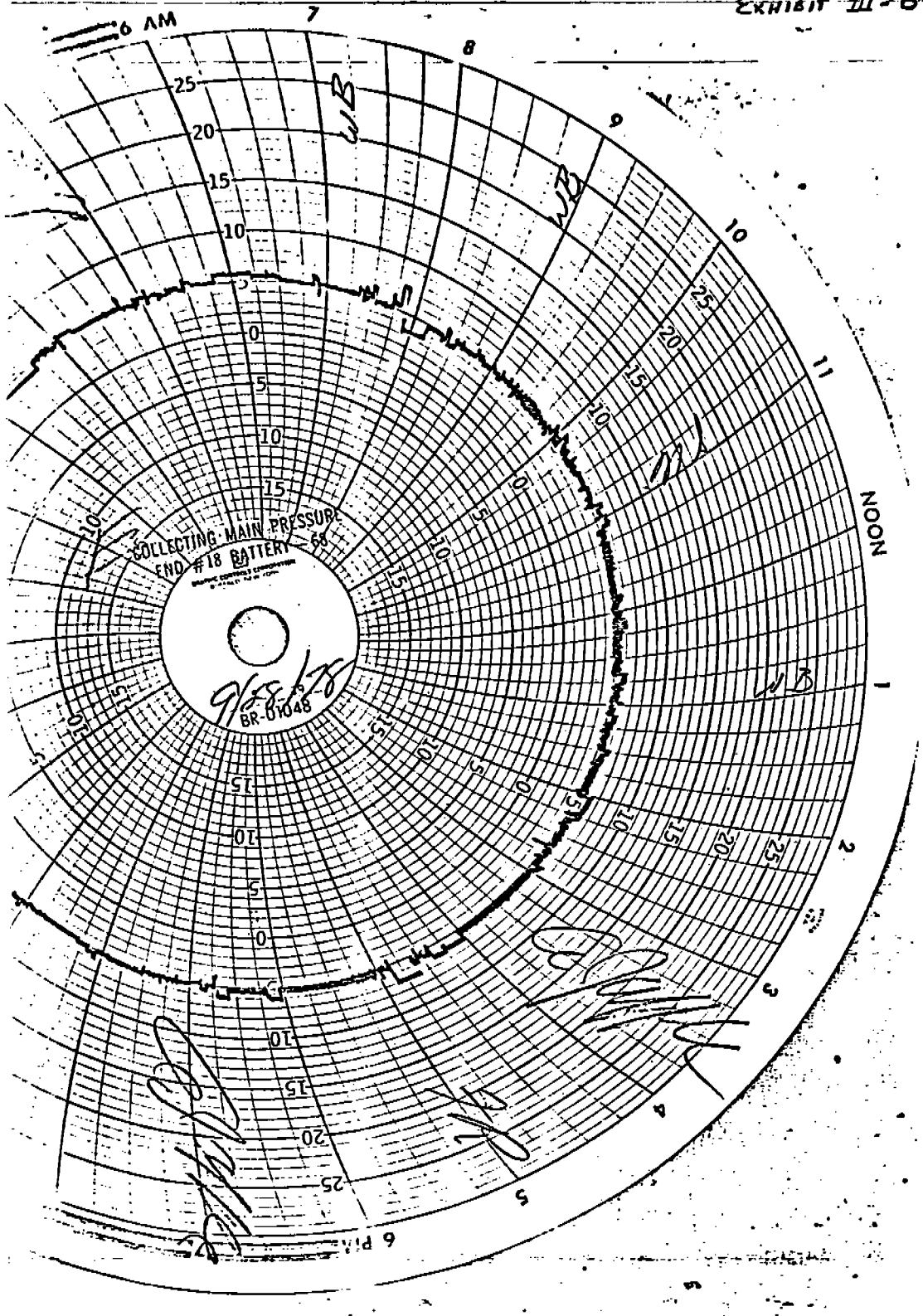
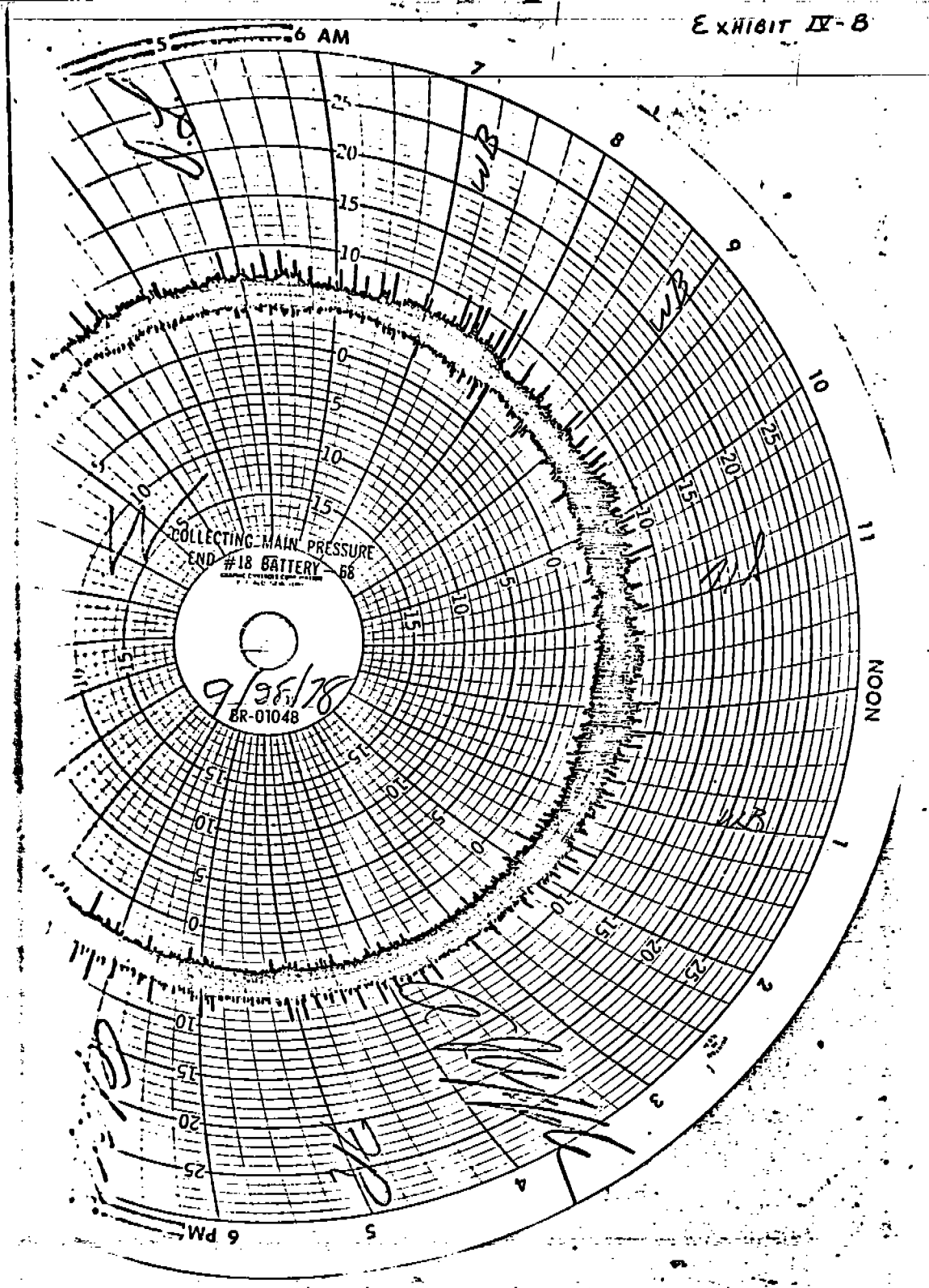


EXHIBIT IV-B


6 AM
NOON
6 PM
COLLECTING MAIN PRESSURE
END #18 BATTERY 68
BR-01048
9/28/78

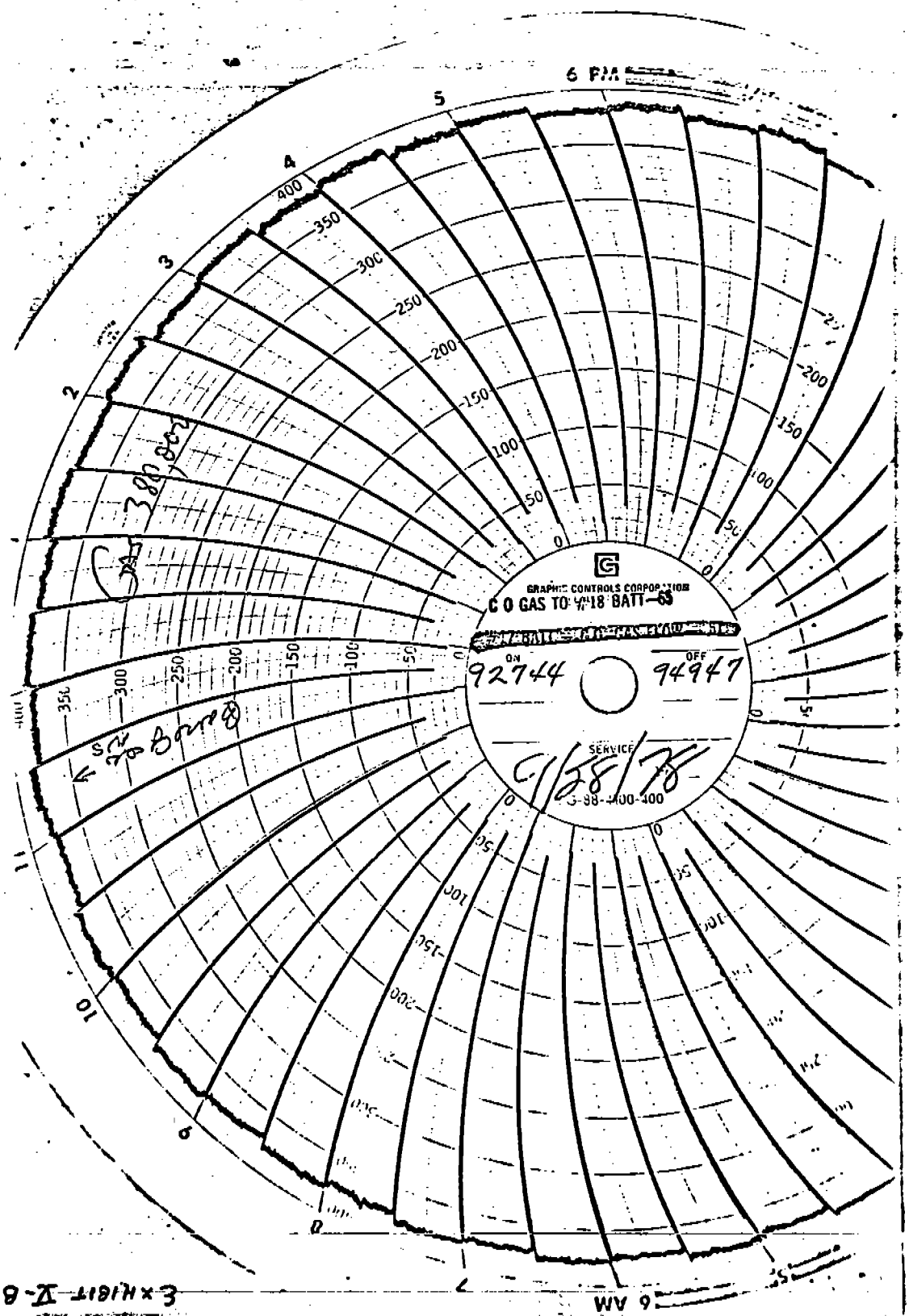
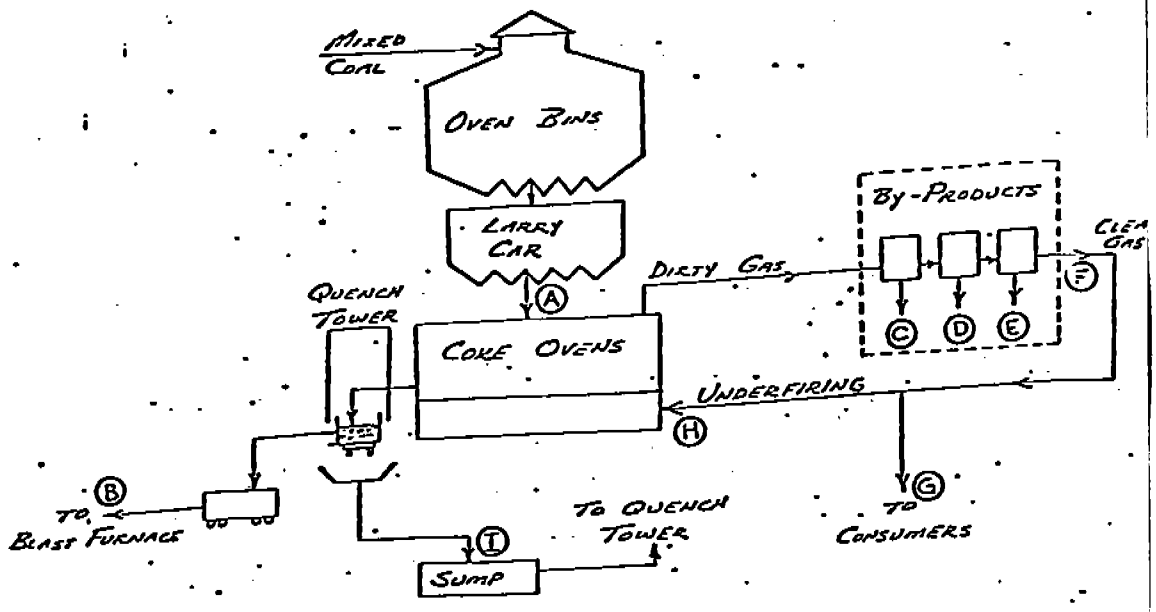

6 AM
GRAPHIC CONTROLS CORPORATION
CO GAS TO #18 BATT-63
ON
92744
OFF
94947
SERVICE
6/28/78
G-98-400-400

EXHIBIT IX-8

EXHIBIT VI-B

PROCESS FLOW SCHEMATIC



KEY: (Rated coal carbonization and the respective coke and by-product recovery per 24 hours of continuous operation per battery.)

(A) Dry coal charged - 1650 net tons/day/battery

(B) Coke produced - 1170 net tons/day/battery

(C) Tar produced - 15,000 gal/day/battery (approx.)

(D) Ammonium sulphate produced - 32,330 lbs/day/battery (approx.)

(E) Light oil produced - 5,000 gal/day/battery (approx.)

(F) Coke oven gas produced - 18,500 mcf/day/battery at 545 btu/cf (approx.)

(G) Coke oven gas to consumers - 9,600 mcf/day/battery (approx.)

(H) Coke oven gas for underfiring - 8,900 mcf/day/battery (approx.)

(I) Quench water - recirculated

SOTDAT/STEEL LIBRARY SYSTEM

Report Title: —

Plant and Location: BSC, Johnstown

SCC: 30300306

Testing Date(s): 9/28/78

By Whom: Company

Stack Test Review Attached:

Reviewed by:

Problems Seen by Reviewer:

Confidentiality Status: Clear

If status is confidential, list confidential pages or sections:

Source of Determination of the Confidentiality Status: Memo entitled: "Steel Technical Support Materials", From: Edward Reich, Director DSSE. To: Tom Voltaggio.

Report Encoded by:

Date Encoded:

Form Numbers:

Comments:

Title:

Plant and Location: BSC, Johnstown

SCC: 30 300306

Test Date: 9/28/78

By Whom: Company

Encoded By: MJF

Date Encoded: 3/8/80

Completed By:

Form No.: E0000 S

R. Watman

Bethlehem Steel Corporation

300 SCC

30300306

JOHNSTOWN PLANT
JOHNSTOWN, PA. 15907

T. N. CROWLEY
GENERAL MANAGER
R. H. RIGDON
M. BECKER
F. R. PULLEN
ASST. GENERAL MANAGERS

November 10, 1978

Certified Mail
Return Receipt Requested

Mr. Robert J. Clark
District Air Pollution Control Engineer
Pa. Dept. of Environmental Resources
Bureau of Air Quality & Noise Control
Prave Building - 2nd Floor
120 S. Center Street
Ebensburg, PA 15931

Dear Mr. Clark:

Attached, in accordance with the Coke Oven Emission Abatement Plan currently being negotiated, is a report regarding an emission test conducted on the #18 Coke Oven Battery Combustion Stack.

Please advise if any further information is required concerning this matter.

Very truly yours,

John T. Dunn

John T. Dunn, P.E.
Superintendent
Environmental Control Department

GEE/lmp
attachment

cc w/attach: M. S. Malin
B. DeHaven
R. P. Frye, Esq.