ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF ENFORCEMENT
EPA-330/2-77-012

Emission Testing at Marathon Steel Company Tempe, Arizona

(APRIL 12-16, 1977)

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
DENVER, COLORADO
AND
REGION IX
SAN FRANCISCO, CALIFORNIA
JUNE 1977

Environmental Protection Agency
Office of Enforcement
EPA - 330/2-77-012

EMISSION TESTING
AT
MARATHON STEEL
TEMPE, ARIZONA

April 12-16, 1977

June 1976

National Enforcement Investigations Center - Denver, Colorado
and
Region IX - San Francisco, California

CONTENTS

FIGURES

TABLES

APPENDICES

I. INTRODUCTION

Marathon Steel Company, Tempe, Arizona manufactures steel reinforcing rods from scrap steel melted in three electric-arc furnaces. After melting, the scrap steel is refined and then cast into ingots. The ingots are heated and rolled into reinforcing rods of various diameters and lengths. Two baghouses (old and new)* control the emissions from the furnaces, casting and other sources [Appendix A].

On November 15, 1976, National Enforcement Investigations Center (NEIC) performed a presurvey inspection requested by Environmental Protection Agency (EPA), Region IX, to determine if the baghouse emissions could be sampled. It was concluded that sampling was feasible provided that minor modifications be made on the old baghouse stack testing platform. No changes were needed at the new baghouse sampling location.

During the period April 12 to 16, 1977 the baghouse emissions of Marathon Steel were tested by NEIC to determine the compliance status of the plant with the Arizona particulate regulation (R9-3-306).** The allowable baghouse particulate emission rates were calculated with the equation in the Arizona regulation and the furnace process weight rates. There are no limitations on particulate concentrations. Visible emission observations were also made and compared to the Arizona opacity regulation (R9-3-301), which limits the emission opacities to 20%, except for excursions to 40% for five minutes.

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* *Designation used by Marathon Steel.*

** *The plant is located in the Phoenix-Tucson Air Quality Control Region.*

*** $E = 3.59\ P^{0.62}$, *where E is the allowable particulate emissions (lb/hr) and P is the furnace process weight (tons/hr).*

II. SUMMARY AND CONCLUSIONS

1. The particulate sampling results are summarized below.

Baghouse	Process Weight m. tons/hr	Particulate Emissions				
		Allowed		Actual		% of allowable emissions
		kg/hr	lb/hr	kg/hr	lb/hr	
Old	7.2	5.9	12.9	6.0	13.3	102%
New	17.0	10.0	22.1	2.9	6.4	29%

The plant met the requirements of the Arizona process weight regulation. On an individual basis, the old baghouse emissions (furnace No. 1) exceeded the allowed emissions by 2%. The new baghouse emissions (furnaces 2 and 3), however, were only 29% of the allowable.

2. The baghouse visible emissions are in compliance with the Arizona opacity regulation of 40%. Visible emissions from the old and new baghouses averaged 7 and 5%, respectively.

3. The average particulate concentration from the old baghouse is more than eight times that of the new baghouse. The possible causes of the high particulate concentration include bleaking bags, the bag cleaning cycle, suitability of bag material, etc.

III. PROCESS DESCRIPTION

Marathon Steel manufactures steel reinforcing rod from reprocessed scrap steel. The Company operates three electric arc melting furnaces (capacities-22.7, 22.7 and 27.2 m. tons) which are the major emission sources. Other emission sources include ladle cleaning (skulling), casting, and fugitive. The furnaces and skulling emissions are collected by hoods and ducted to two baghouses. The fugitive emissions from the hoods and casting area collect under the building roof and are also vented to the baghouses.

The furnace No. 1 emissions are controlled by the old baghouse (Station 1). The baghouse uses Nomex* bags to clean 1,700 m^3/min (60,000 acfm) of gas (air to cloth ratio of 2.3:1).

Furnaces No. 2 and 3 and the skulling emissions are ducted together and then split to the two sides (north, Station 3 and south, Station 2) of the new baghouse. Both sides have Dacron* bags and each clean 2,820 act. m^3/min (100,000 acfm) of gas (air to cloth ratio of 2.7:1).

The ducting to the baghouses is interconnected so that the gas streams can be rerouted to one baghouse if necessary. The fugitive emissions can be vented to either baghouse.

Plant log sheets lists the exact amounts of material charged to a furnace during a heat (melt) along with any changes in operating procedure, e.g., changes of furnace electrodes, downtime, oxygen blow

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* *Trade name.*

duration. These log sheets were used to calculate the process weight of each furnace during the sampling period [Appendix B]. The process weight for furnaces Nos. 2 and 3 were combined when calculating the new baghouse allowable particulate emission rate. The furnace process weights and the allowable emissions are summarized in Table 1.

Table 1

PROCESS WEIGHT SUMMARY
Marathon Steel
Tempe, Arizona
April 12-16, 1977

Date (April)	Furnace No.	Process Weight		Allowable Emissions	
		m.tons/ hr	tons/ hr	kg/ hr	lb/ hr
12	1	8.0	8.8	6.3	13.8
	2 and 3	16.2	17.9	9.8	21.5
13	1	6.4	7.1	5.5	12.1
	2 and 3	14.2	15.6	9.0	19.7
14	1	7.4	8.2	6.0	13.2
	2 and 3	18.1	20.0	10.5	23.0
15	1†	0	0	0	0
	2 and 3	19.7	21.7	11.0	24.2
16	1	6.9	7.6	5.7	12.6
	2 and 3	16.5	18.2	9.9	21.7
Average	1	7.2	7.9	5.9	12.9
	2 and 3	17.0	18.7	10.0	22.1

† *Furnace No. 1 down for reline.*

IV. TEST PROCEDURES

Testing was conducted at Marathon Steel from April 12 to 16, 1977 at the following locations: Station 1, old baghouse; Station 2, new baghouse (south side); Station 3, new baghouse (north side). A preliminary velocity, temperature and moisture traverse was made on Station 3, April 12. Except for the number of points sampled in the old baghouse stack (see section on sample locations), the tests were conducted in accordance with the procedures specified in Method 5.*

The sampling train used was the Model AP 5000 manufactured by Scientific Glass, Inc. [Appendix C] which was configured as follows:

1. Stainless steel (316) nozzle
2. Glass-lined probe
3. Glass fiber filter (11.4 cm diameter)
4. First impinger -- modified Greenburg-Smith with 100 ml distilled water
5. Second impinger -- Greenburg-Smith with 100 ml distilled water
6. Third impinger -- modified Greenburg-Smith, empty
7. Fourth impinger -- modified Greenburg-Smith with approximately 200 g of silica gel

Moisture content of the gas stream was determined from the increase in volume in the first three impingers and the weight gain of the silica gel (Method 4*).

Stack gas molecular weight was based on the average analyses of two to three gas samples collected during each run. Gas samples were

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* *40 CFR 60, Standards of Performance for New Stationary Sources, Appendix Test Methods, June 8, 1976.*

obtained by the grab sample technique* of Method 3 (40 CFR 60). Analyses were performed with Fyrite** type combustion gas analyzers.

A minimum of three sampling runs, within the isokinetic range of 90 to 110%, were performed on each stack. Prior to each run, the sampling train was leak-checked at 38 cm (15 in) Hg. At the completion of the run, a second leak check was conducted at the highest vacuum recorded during the test. These checks are acceptable if the leakage rate did not exceed 0.00057 m^3/min (0.02 cfm). All sampling runs were structured to provide a minimum sampling time of 60 minutes* and a minimum sample volume of 849 dry std. liters (30 dscf).* Probe and oven temperatures were held within 14°C (25°F) of 120°C (248°F) during testing.

All pitobe assemblies, dry gas and orifice meters used in this test had been calibrated prior to leaving Denver and were recalibrated upon return [Appendix D]. The pitobe assemblies used during the compliance test were those identified as 5-5 (old baghouse stack) and 8-1 (new baghouse ducts).

An NEIC mobile laboratory, located at the plant, was used for all sampling train preparation and sample recovery. Sample recovery proceeded as follows:

1. All filters were returned to their storage container (Petri-dish) and sealed with aluminum foil.
2. The nozzles, probes, cyclones and front portion of the glass filter holder were washed with acetone and the washings from each train were collected in a glass jar with a Teflon**-lined cap.

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* *The Arizona SIP stack sampling requirements specify that 1) an integrated gas sample be taken, 2) the sampling period be at least 2 hours, and 3) at least 60 dscf be sampled. These requirements, which are more stringent than Method 5 requirements, were not strictly followed. It was determined during the pre-survey inspection that the Method 5 procedures would obtain representative results.*

** *Brand name.*

3. The volume of the contents of impingers 1-3 was measured as part of the moisture determination. The contents were then discarded.
4. Impinger 4, which contained silica gel, was weighed to determine the moisture gain and the silica gel was discarded.

All samples were returned to the NEIC laboratories for particulate analyses [Appendix E]. Chain of custody was maintained at all times [Appendix F].

Sample Locations

The old baghouse stack (Station 1) is 1.5 m (5 ft) in diameter and 12 m (40 ft) tall [Figure 1]. The ports are located 3.0 stack diameters (4.5 m or 15 ft) downstream of the inlet and 3.0 stack diameters upstream of the stack exit. Based on Method 1 criteria a total of 42 sampling points were required.

Two parallel bars (5 cm angle irons) cross the stack immediately (5 cm) upstream of the test ports and could cause flow disturbance. Based on a preliminary velocity traverse, a flow disturbance was found only within 2.5 cm (1 in) of these bars. The preliminary traverse also determined that the gas velocity profile in the stack was flat, indicating uniform flow. Thus, the number of sample points could be reduced to avoid sampling within 2.5 cm of the bars without affecting the sample representativeness. The number of sample points was therefore reduced to 28 (from 42), which increased the distance from the bars to the nearest sampling point to 7.6 cm (3 in). Each point was sampled for 3 minutes (84 minutes per test).

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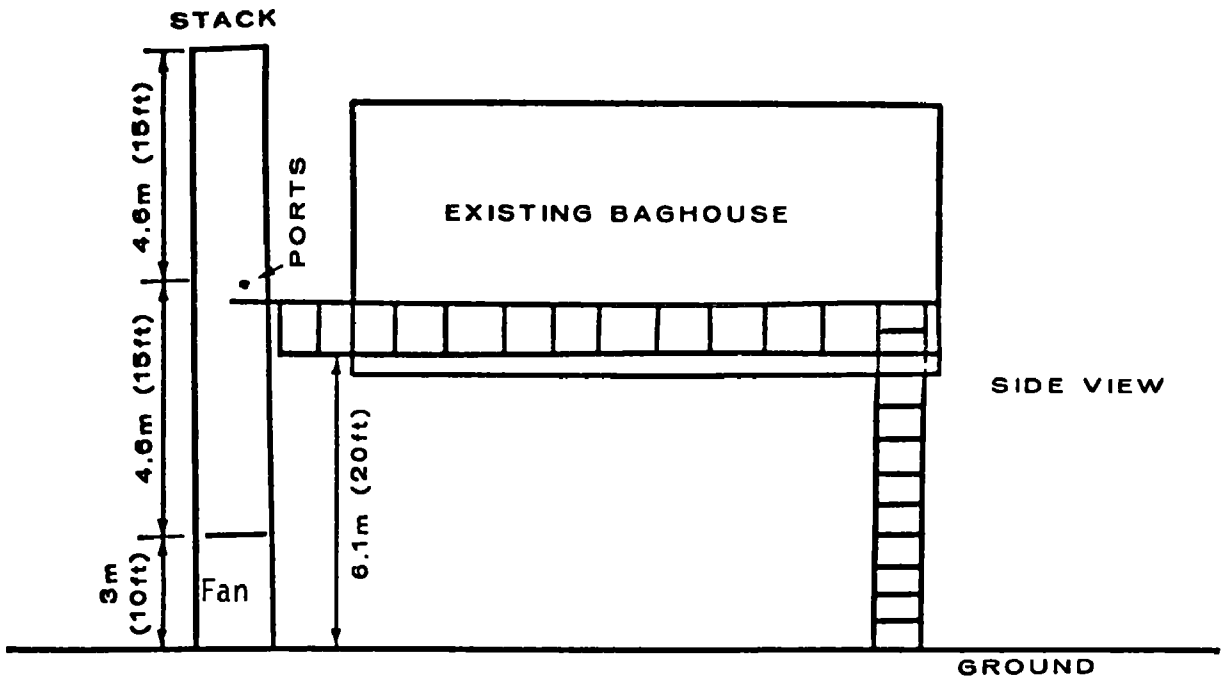
* *Brand name.*



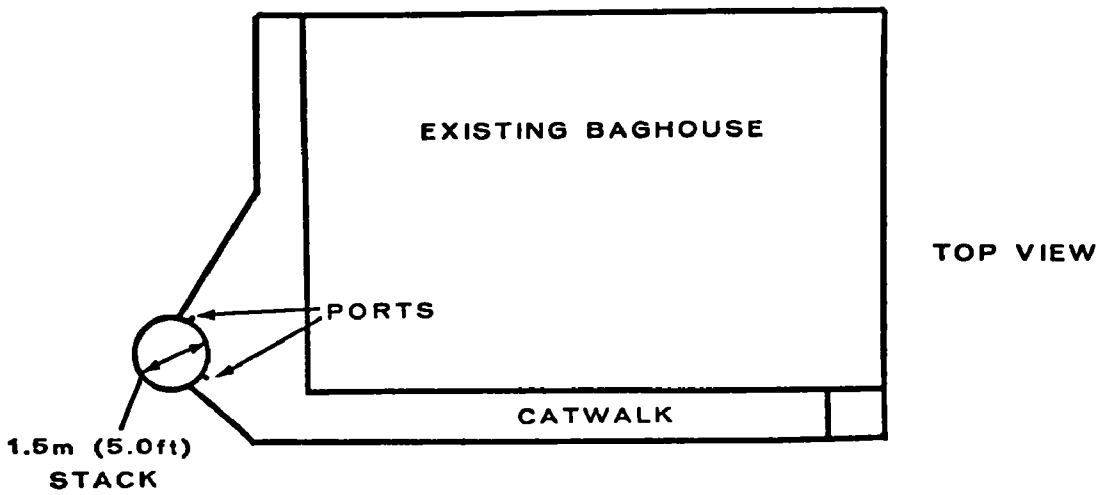


Figure 1. Marathon Steel, Tempe, Arizona

Old Baghouse – Station 0401

The new baghouse emissions were sampled in the ducts* between the baghouse and the fans (Stations 3, north side, and 2, south side). Six equally spaced 10 cm (4 in) sampling ports are located 2.1 equivalent diameters (4.3 m or 14 ft) downstream of a flow disturbance and 0.5 equivalent diameters (1 m or 3.4 ft) upstream of a flow disturbance [Figure 2],** therefore, Method 1 requires 48 sample points. Each point was sampled for 2 minutes (total test time of 96 minutes).

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* *The new baghouse has two identical ducts (north and south), each of which handles approximately half of the waste gases.*

** *The length to width ratio is 1.3.*

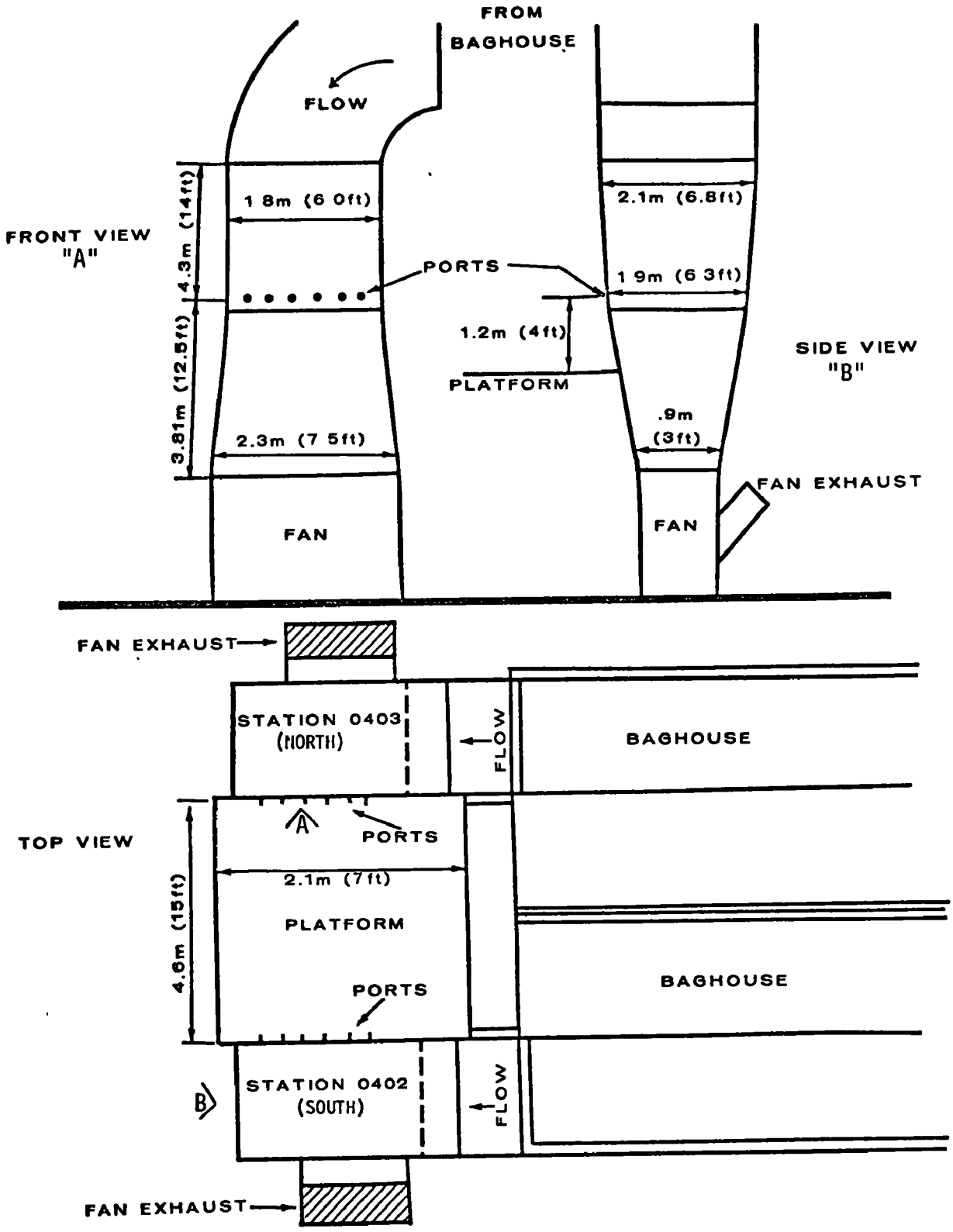


Figure 2. Marathon Steel Tempe, Arizona

New Baghouse – Stations 0402, 0403

V. TEST RESULTS

The old baghouse (Station 1) and the new baghouse, north side (Station 3), were sampled three times, while the new baghouse, south side (Station 2), was sampled five times. The second run of the new baghouse, south side, was unacceptable because the filter was not in proper position after the final leak check. Isokinetic sampling rates for the eleven sample runs ranged from 94.6 to 108.9%, within the specified range of 90 to 110%. The test data [Appendix G] is summarized in Tables 2, 3 and 4.

The old baghouse (Station 1), particulate emissions [Table 2], averaged 6.0 kg (13.3 lb)/hr, 2% over the allowed 5.9 kg (12.9 lb)/hr. Since 2% is within the accuracy of the test method, a violation did not occur.

The new baghouse particulate emissions are in compliance with state regulations. The emissions [Tables 3 and 4] averaged 2.9 kg (6.4 lb)/hr, 29% of the allowable emission (i.e. 10 kg/hr. Combining the emission of the two sides (north and south) was necessary because there are no dampers to evenly control the gas flow rate to each side and the furnaces 2 and 3 process weights cannot be separated. The design gas flow rate of both sides (north and south) of the new baghouse is 2,830 act. m^3/min (100,000 acfm). The flow rates observed during the survey were 3,020 act. m^3/min (106,800 acfm) for the north side (Station 3), 35% more volume than treated in the south side (Station 2) 2,230 act. m^3/min (78,700 acfm). The emission particulate concentrations, however, differed by less than 1.5 mg/m^3.

Table 2

DATA SUMMARY - STATION 1
Marathon Steel
Tempe, Arizona
April 1977

Run Number Sample Date (April)	1 16	2 16	3 16	Average
Volume Sampled (STP)† ft^3 liters	41.10 1,163	37.04 1,048	35.29 998	
Moisture %	0.3	0.1	0.2	
Barometric Pressure cm of Hg in of Hg	73.18 28.81	73.18 28.81	73.18 28.81	
Stack Gas Temperature °F °C	206 97	220 105	212 100	101
Molecular Weight (dry)	28.82	28.84	28.83	
% Isokinetic	99.2	99.9	94.6	
Stack Gas Velocity ft/sec m/sec	42.9 13.1	39.1 11.9	38.9 11.9	
Volumetric Flow Rate (STP)† ft^3/min m^3/min	38,500 1,080	34,400 960	34,600 970	35,800 1,000
Particulate Collected (mg) Acetone Wash Filter Total	95.4 20.9 116.3	93.2 24.8 118.0	46.3 42.0 88.3	
Particulate Concentration gr/SCF mg/m^3	0.044 100	0.049 113	0.039 88.4	0.044
Particulate Emissions lb/hr kg/h	14.3 6.47	14.4 6.53	11.3 5.14	13.3 6.05

† *STP - Standard Temperature (68°F) and Pressure (29.92 in of Hg)-Dry.*

Table 3

DATA SUMMARY - STATION 2
Marathon Steel
Tempe, Arizona
April 1977

Run Number	1	2	3	4	5	Avg.
Sample Date (April)	14	14	14	15	15	
Volume Sampled (STP)†						
ft^3	41.97	40.80	44.40	55.12	52.40	
liter	118	1,134	1,256	119	148	
Moisture %	1.9	0.0	0.4	0.8	0.2	
Barometric Pressure						
cm of Hg	72.52	72.52	72.52	73.00	73.00	
in of Hg	28.55	28.55	28.55	28.74	28.74	
Stack Gas Temperature						
°F	142	154	180	184	197	
°C	61	68	82	85	92	78
Molecular Weight (dry)	28.64	28.84	28.84	28.84	28.84	
% Isokinetic	106.7	108.9	107.4	99.8	98.2	
Stack Gas Velocity						
ft/sec	34.2	32.6	29.2	39.1	38.3	
m/sec	10.4	9.94	8.91	11.9	11.7	
Volumetric Flow Rate (STP)†						
ft^3/min	60,800	58,500	50,300	67,100	64,800	60.300
m^3/min	1,700	1,640	1,400	1,880	1,800	1,690
Particulate Collected (mg)						
Acetone Wash	14.1	4.7	15.1	25.3	6.9	
Filter	2.6	0.7	0.9	0.6	2.1	
Total	16.7	5.4	16.0	25.9	9.0	
Particulate Concentration						
gr/SCF	0.0061	0.0021	0.0055	0.0072	0.0026	0.0054
mg/m^3	14.1	4.76	12.7	16.6	6.07	12.4
Particulate Emissions						
lb/hr	3.17	1.04	2.36	4.12	1.46	2.78
kg/hr	1.44	0.47	1.07	1.87	0.66	1.26

† *STP - Standard Temperature (68°F) and Pressure (29.92 inch of Hg) - Dry.*
†† *Run No. 2, station 0402 results not included in emission averages because filter was not in proper position after final leak check.*

Table 4

DATA SUMMARY - STATION 3
Marathon Steel
Tempe, Arizona
April 1977

Run Number	1	2	3	Average
Sample Date (April)	13	13	13	
Volume Sampled (STP)†				
ft^3	57.39	54.28	53.93	
liters	1,624	1,536	1,526	
Moisture %	0.9	1.3	0.4	9
Barometric Pressure				
cm of Hg	72.90	72.90	72.64	
in of Hg	28.70	28.70	28.60	
Stack Gas Temperature				
°F	127	157	149	
°C	53	70	65	63
Molecular Weight (dry)	28.84	28.84	28.84	
% Isokinetic	100.0	102.1	100.1	
Stack Gas Velocity				
ft/sec	47.9	46.8	46.6	
m/sec	14.6	14.3	14.2	
Volumetric Flow Rate (STP)†				
ft^3/min	90,000	83,300	84,500	85,900
m^3/min	2,520	2,330	2,370	2,410
Particulate Collected (mg)				
Acetone Wash	12.5	13.2	17.5	
Filter	0.5	4.7	3.7	
Total	13.0	17.9	21.2	
Particulate Concentration				
gr/SCF	0.0035	0.0051	0.0061	0.0049
mg/m^3	8.00	11.7	13.9	11.2
Particulate Emissions				
lb/hr	2.67	3.62	4.34	3.55
kg/hr	1.21	1.64	1.97	1.61

† *STP - Standard Temperature (68°F) and Pressure (29.92 in of Hg)-Dry.*

The particulate concentration from the old baghouse is 100 mg/m^3, more than eight times the new baghouse particulate concentrations of 12.4 and 11.2 mg/m^3, south and north side, respectively. The old baghouse gas flow rate was 1,340 act. m^3/min (47,500 acfm), only 80% of the design flow rate of 1,700 act. (60,000 acfm). No problems were caused by the gas temperature (101°C)or moisture (<1%). Possible reasons for this difference include leaking bags, the bag cleaning cycle or suitability of bag material.

The visible emissions from all three emission points are in compliance with the Arizona limitation of 40% opacity [Table 5]. Rarely (2 of 14 observations) did the average opacities exceed 10% and these observations occurred during one sample run (run 3 of the new baghouse, north side). As can be seen in the observation data sheets [Appendix G] the emissions increased in opacity at regular intervals. These intervals occurred immediately after a baghouse section was cleaned.

Table 5

VISIBLE EMISSION SUMMARY (Opacity)
Marathon Steel
Tempe, Arizona
April 12-16, 1977

Station No.	Run No.	Avg. of 24 Readings (%)	Readings High (%)	Low (%)
0401	1	5.6	30	0
	2	9.4	20	5
	3	6.5	10	5
0402	1	1.9	15	0
	2	1.0	10	0
	2†	2.7	15	0
	3	0.6	10	0
	4	1.5	15	0
	5	0.6	10	0
0403	1	1.3	10	0
	1†	0.9	10	0
	2	4.8	15	0
	3	13.8	30	5
	3†	22.3	35	10

† *More than one set of 24 readings performed during a single run.*

APPENDIX A

Presurvey Inspection of Marathon Steel Company
Tempe, Arizona

APPENDIX A

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF ENFORCEMENT
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
BUILDING 53, BOX 25227, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

Chief, Field Operations Branch DATE. December 20, 1976

:OM : Paul R. dePercin

JBJECT. Presurvey Inspection of Marathon Steel Company, Tempe, Arizona

On November 15, 1976, Messrs. Daniel Yee, EPA, Region IX, and Gregory Witherspoon, Maricopa County Health Department, accompanied the writer on the subject inspection to determine the feasibility of performing source testing. The inspection also included a review of the process operations, the pollution control equipment and an evaluation of the control equipment operations.

The plant manufactures structural reinforcement rods from scrap steel. Approximately 205 m. tons (226 tons) of reinforcement rods are produced each day. The reinforcement rods vary in diameter and length according to customer orders [Figure 1].

The plant representatives contacted were Messrs. Charles Brooks, Manager-Engineering, and George Collins, Plant Engineer.

Process Description

The scrap steel that enters the plant is used without any prior conditioning (shredding or drying). The scrap steel and alloying materials (silica, ferro manganese, feldspar, and carbon) are charged into one of three electric arc furnaces from a bottom drop charge bucket with only two furnaces operating at a time. The furnaces have rated capacities as follows:

	Process Rate			
	Per Heat		Per Hour	
Furnace No.	m. tons	(tons)	m. tons	(tons)
1	22.7	(25)	9.1	(10)
2	22.7	(25)	9.1	(10)
3	27.2	(30)	11.3	(12.5)

The heat time (i.e., the time required to melt the charge) is usually two to three hours. A log is available which lists the material charged to the furnace and the beginning and end times of each heat.

A hood is placed over the furnace after charging and contains three arc electrodes. The scrap acts as a conductor between the electrodes. The hood and electrodes are removed from the furnace after melting is complete and the furnace is then tilted to pour the molten metal into the ladle. The slag is tapped off separately.

The bottom pour ladle teems the molten metal into ingot molds (454 kgs or 1,000 lbs each). The ingots are cooled, stripped of the molds and stored. The metal that solidified on the sides and bottom of the ladle interior is called a skull. This is removed from the ladle mechanically under a skulling hood.

The cooled ingots are reheated to 1,900°F in a natural gas (fuel oil alternate) furnace and rolled into structural reinforcing rods. These rods are then cooled and cut to the desired length.

Control Equipment Description

The major sources of emissions result from the charging, melting, pouring and slagging of the furnaces and from the ladle cleanup (i.e., skulling) operation. The furnace and the skulling hoods collect the melting and cleaning emissions respectively. Fugitive emissions due to furnace leaks and from the charging, pouring and slagging operations are collected in the roof monitor which runs the full length of the building roof peak. Three baghouses, described below, control the emissions from the above operations.

Baghouse No.	Processes Controlled	Air Volume Cleaned m^3/min (ACFM)	Compartments	Types of Bags
1	Furnace No. 1 Roof monitor	1,700 (60)	5	Nomex
2	Furnaces No. 2 & 3 Roof monitor Skulling hood	2,820 (100)	7	Dacron
3	Furnaces No. 2 & 3 Roof monitor Skulling hood	2,820 (100)	7	Dacron

Dampers in the ducting from the individual furnaces control the volume of gases drawn from the hoods, roof monitors and skulling hood (if in operation).

When furnaces No. 2 and 3 are melting scrap the dampers are open causing 60% of the gase flow to be drawn from the furnace hoods and 40% from the roof monitor and skulling hood. At all other times (i.e., pouring, slagging and charging) the No. 2 and 3 furnace dampers are closed resulting in 100% of the gas flow to be drawn from the roof monitor and the skulling hood. While furnace No. 1 is melting (damper open) all the emissions controlled by baghouse No. 1 are from the furnace hood. At present, the No. 1 furnace is inoperable, the damper is closed and thus baghouse No. 1 controls just the emissions collected in the roof monitor.

All three baghouses have a control system to prevent the baghouse gas temperature from exceeding the bag material limitations. During the furnace melting cycle, if the baghouse temperature reaches a predetermined value (i.e., 250°F) the damper closes further to allow greater dilution with roof monitor gases.

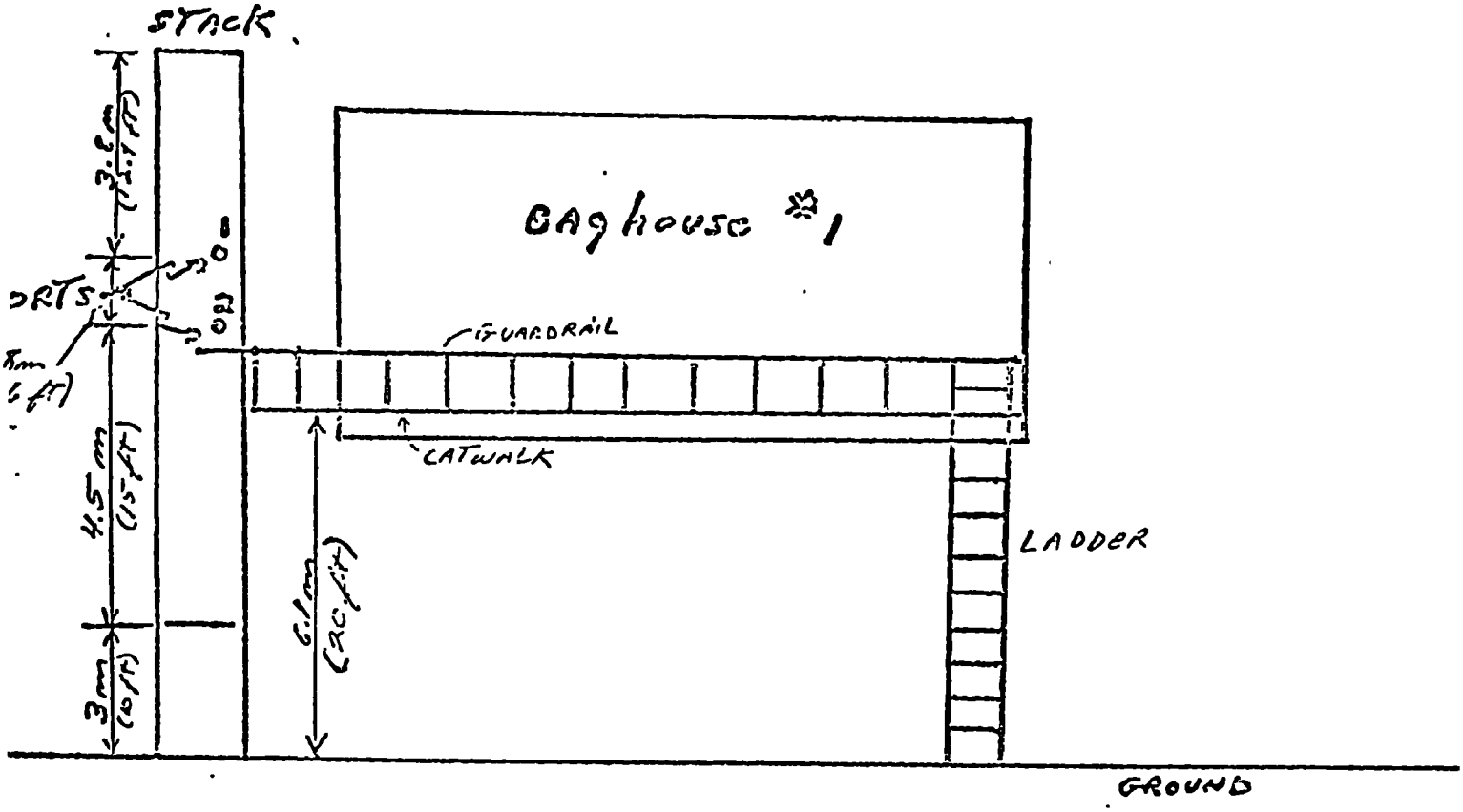
At the base of each baghouse are the damper controls, gas temperature indicators and the cleaning cycle controls. The Company reported that the bags in each compartment are cleaned by shaking 30 seconds out of every two minutes. The baghouses operate under a vacuum because the fans are downstream.

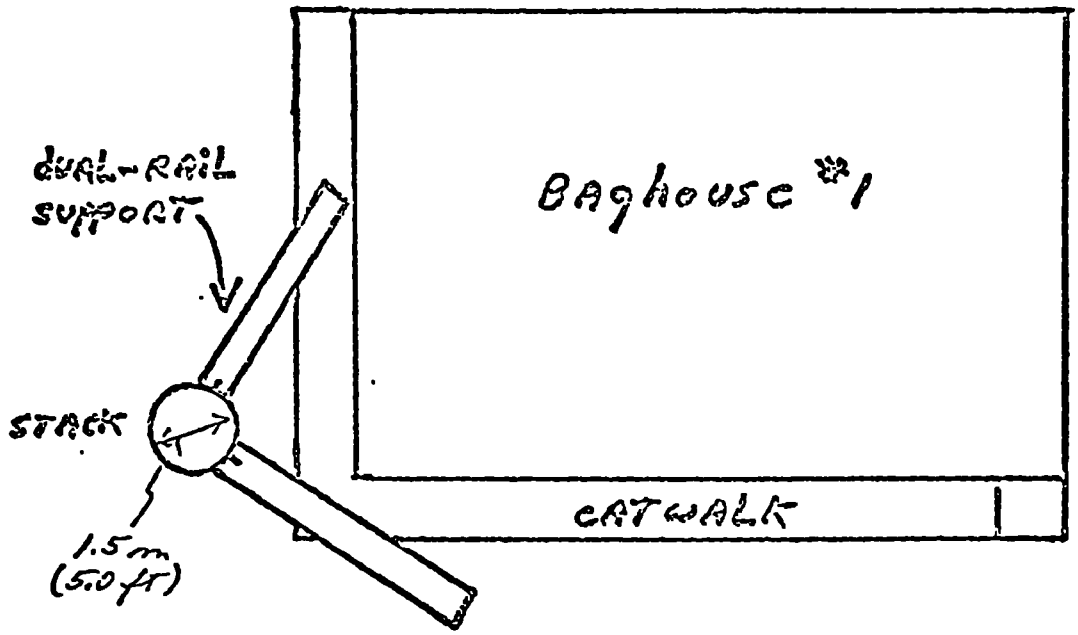
Baghouse No. 1 emissions vent from a steel stack. Baghouses No. 2 and 3 emissions are exhausted directly to the atmosphere from the fans. The exhaust gas velocity from the three baghouses are expected to range from 12-18 m (40-60 ft)/sec with temperatures ranging from ambient to 300°F. The moisture of the gases will be near ambient (0-5%). The bulk of the particulate present in the emissions gases will be less than ten microns in size. No visible emissions were observed from the No. 1 baghouse, but visible emissions of 5-10% occurred periodically from baghouses No. 2 and 3.

Source Sampling Feasibility

The baghouse emissions can be sampled following the EPA, Method 5 procedures. Modifications at baghouse No. 1 are required.

Baghouse No. 1 stack is 1.5 m (5 ft) in diameter and 12 m (40 ft) tall [Figure 2] and has two sets of sample ports. The first set of ports are 10 cm (4 inches) in diameter and are located 3.5 stack diameters (5.2 m or 17.6 ft) downstream of the fan inlet and 2.5 stack diameters (3.8 m or 12.4 ft) upstream of the stack exit. The ports are located 1.1 m (3.6 ft) above a dualrail sampling platform and 2 m (6.5 ft) about the catwalk. The second set of ports are 9 cm (3.5 inches) in diameter and are located 3.0 stack diameters (4.5 m or 15 ft) downstream of the fan inlet and 3.0 stack diameters (4.5 m or 15 ft) upstream of the stack exit. The second set of ports are directly underneath the first set and about .3 m (1 ft) above the dualrail sampling platform mentioned previously. The catwalk guardrail supports the dualrail sampling platform .9 m (3 ft) above the catwalk. The dualrail sampling platform is 32 cm (12.5 inches) wide and 2.7 m (8.8 ft) long and





MARATHON STEEL
Tempe, ARIZONA

Figure. 2

is made of 5 cm (2 inches) angle iron. Guide wire brackets for supporting a portable monorail are located approximately 1.8 m (6 ft) above the lower ports. Access to the sampling platform is by ladder.

Either sampling location on the No. 1 baghouse stack meet the EPA, Method 1 and 2 requirements. The top set of ports are 2 m (6.5 ft) above the catwalk. Sampling at this location would require a platform to be built. The ports are 1.2 m (4 ft) above the catwalk, but only .3 m (1 ft) above the dualrail sampling platform. A clearance of .4 m (1.3 ft) below the ports is needed by the sample box, therefore, the dualrail sampling platform and supporting section of guardrail would have to be removed.

Baghouse No. 2 and 3 have identical geometries. Neither baghouse fan exhausts to a stack, however, the baghouse emissions can be sampled in the duct* between the baghouse and the exhaust fan [Figure 3]. The duct is straight for half its length and then tapers the other half. The sample ports are located approximately halfway in this run of duct or 2.2 equivalent diameters downstream of the 90° bend. Downstream of the ports the duct geometry converges in one place and diverges in another [Figure 3]. At 0.5 equivalent diameters downstream of the ports the effect of the diverging and converging section should have little impact because the cross sectional area decreases only slightly. Forty-eight sampling points will be used at the baghouse 2 and 3 location.

There are six 10 cm (4 inch) ports equally spaced across the 1.8 m (6 ft) wide duct. The ports are 1.2 m (4 ft) above the sampling platform which is 2.1 m (7 ft) wide and 4.6 m (15 ft) long. The same platform would be used to sample both baghouse ducts. No modifications are needed to perform the source sampling.

Summary and Conclusions

The emissions from the Marathon Steel Company plant can be determined using EPA, Method 5 procedures. To sample baghouse No. 1 several modifications at existing locations will be necessary;

a. If the lower ports are used the dualrail system presently in place will need to be moved. In addition, a 51 cm (20 inch) wide section of the guardrail where the dualrails are attached must be removed in order that sufficient horizontal and vertical clearances are provided.

b. If the upper ports are used, a work platform with proper guardrails would need to be provided. This would require raising the present platform about .75 cm (2.5 ft) and

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* The gases at the sample point have a negative static pressure (vacuum) of approximately 13 cm (5 inches) of mercury.

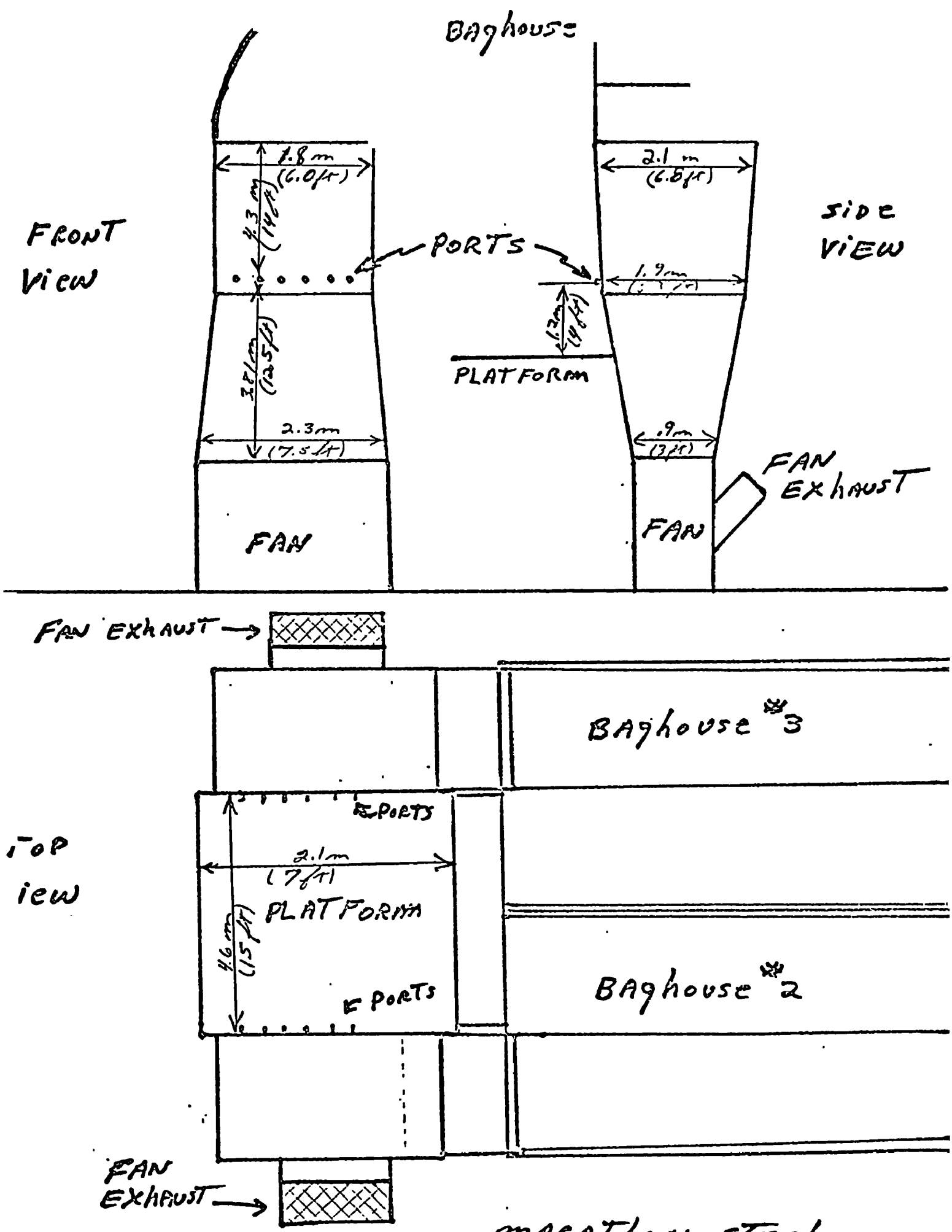

FIGURE 3

MARATHON STEEL
TEMPE, ARIZONA

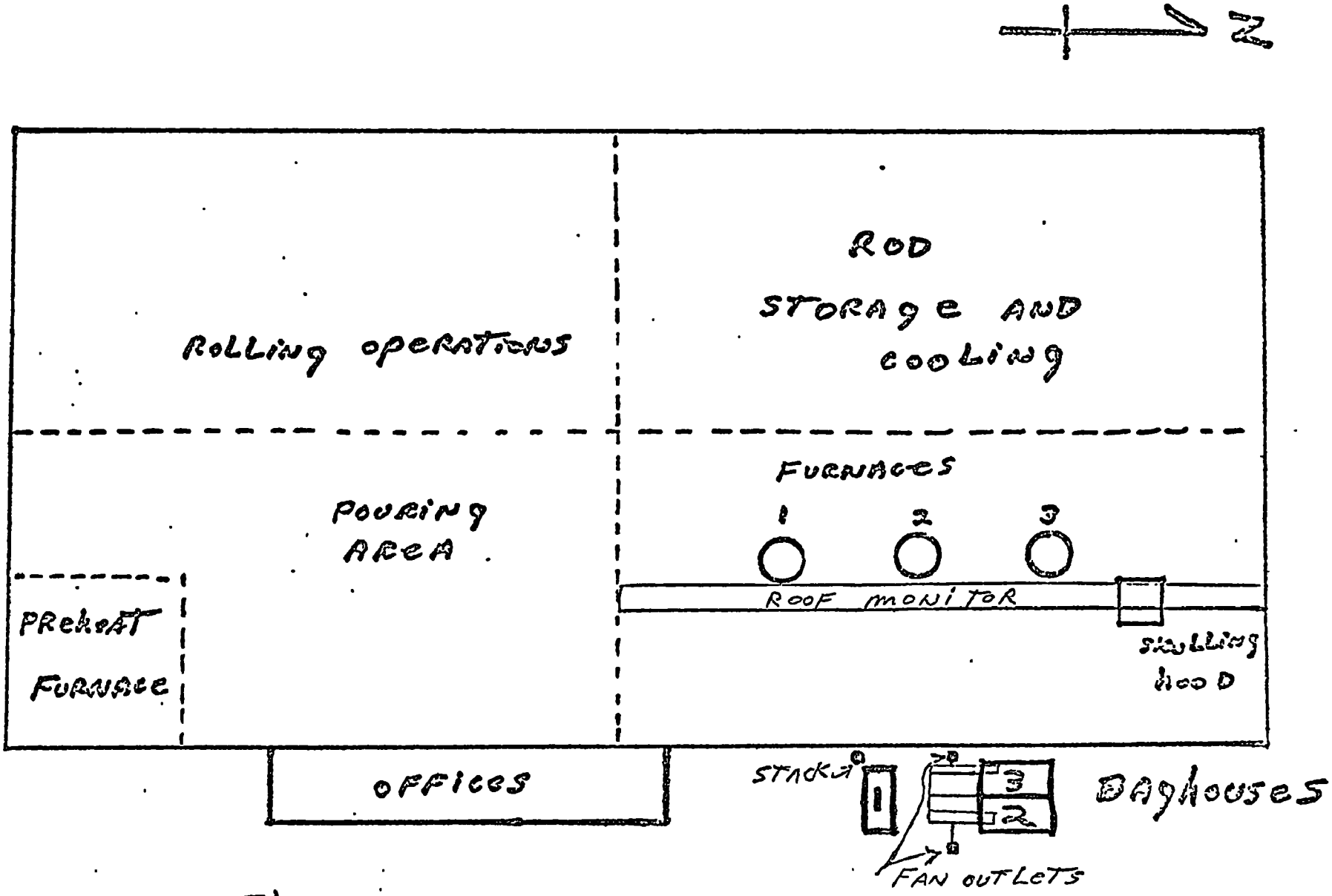

Figure 1: Plant Plot Plan

providing the horizontal and vertical clearances described under (a).

No modifications are necessary to sample baghouses 2 and 3 emissions. Source tests at the three locations described will provide an adequate determination of the total emission load.

The process and control equipment operations can be monitored from the heat logs and the baghouse control panels.

APPENDIX B

Production Data and Process Weight Calculations

APPENDIX B

Marathon Steel
Daily Production Rates

Date	Furnace	m. tons HR	Production tons/hr	Hour
4/12	1	8.0	8.8	0837-1155
	2	6.5	7.2	1222-1625
	3	9.7	10.7	0833-1923
4/13	1	6.5	7.14	0832-1727
	2	4.7	5.16	1118-1721
	3	9.4	10.4	0731-1830
4/14	1	7.4	8.2	0957-1321
	2	8.9	9.8	0820-1936
	3	9.3	10.2	0550-1714
4/15	1	--- Down*	---	------
	2	10.2	11.2	0725-1755
	3	9.5	10.5	0618-1741
4/16	1	6.9	7.6	0722-1806
	2	9.3	10.2	0727-2000
	3	7.3	8.0	0954-1752

Furnace Down for reline

Marathon Steel

Furnace #1 Date	Weight of Material Melted	Time Period
4/12	58,989 Lbs 4 min O_2	8:37 to 11:55
	57,331 Lbs 12 min O_2	12:00 to 14:37
	59,994 Lbs 29 min O_2	14:55 to 18:29
4/13	58,536 Lbs No O_2	8:32 to 11:49
	57,866 Lbs No O_2	12:35 to 5:27
4/14	54,339 Lbs No O_2	9:57 to 13:21
4/15	Furnace Down	
4/16	51,333 Lbs No O_2	7:22 to 10:06
	54,486 Lbs No O_2	10:26 to 13:33
	54,830 Lbs No O_2	14:14 to 18:06

Marathon Steel

Furnace #2 Date	Weight of Material Melted	Time Period
4/12	57,401 Lbs No O_2	12:22 to 4:25
4/13	56,049 Lbs 6 min O_2	11:30 to 2:14
	57,666 Lbs 3 min O_2	2:35 to 5:13
	61,911 Lbs No O_2 (down time)	11:18 to 15:30
	59,026 Lbs No O_2 (down time)	15:30 to 17:21
4/14	55,301 Lbs 5 min O_2	8:20 to 10:45
	61,666 Lbs 12 min O_2 (maintanence)	12:25 to 15:30
	58,771 Lbs No O_2 (maintanence)	15:55 to 19:36
4/15	59,676 Lbs 7 min O_2	7:25 to 10:01
	59,186 Lbs 3½ min O_2	10:11 to 12:37
	58,921 Lbs 3 min O_2	12:45 to 15:00
	58,159 Lbs No O_2	15:22 to 17:55
4/16	54,006 Lbs No O_2	7:27 to 10:15
	51,761 Lbs 3 min O_2	11:24 to 14:35
	56,659 Lbs 22 min O_2	17:40 to 20:00

Marathon Steel

Furnace #3 Date	Weight of Material Melted	Time Period
4/12	59,216 Lbs 1 min O_2	8:33 to 11:03
	59,444 Lbs 15 min O_2	11:12 to 13:44
	59,474 Lbs 7½ min O_2	13:51 to 16:58
	57,561 Lbs 10 min O_2	17:09 to 19:23
4/13	58,286 Lbs 3 min O_2	7:31 to 10:08
	60,586 Lbs No O_2	10:16 to 12:49
	55,036 Lbs No O_2	12:59 to 15:46
	54,665 Lbs No O_2	15:55 to 18:30
4/14	59,306 Lbs No O_2	5:50 to 8:46
	51,586 Lbs No O_2	8:53 to 11:35
	53,436 Lbs No O_2	11:53 to 14:11
	60,504 Lbs 5 min O_2	14:34 to 17:14
4/15	57,236 Lbs No O_2	6:18 to 8:28
	58,624 Lbs No O_2	8:34 to 11:08
	53,424 Lbs No O_2	11:25 to 13:59
	60,589 Lbs No O_2	14:34 to 17:41
4/16	53,274 Lbs No O_2 (problems)	9:54 to 13:40
	59,374 Lbs 3 min O_2	15:03 to 17:52

APPENDIX C

STACK SAMPLING EQUIPMENT

APPENDIX C

STACK SAMPLING EQUIPMENT

The Scientific Glass Model AP-5000 modular STAC-O-LATUR^{tm} sampling train consists of a control unit, a sampling unit and a vacuum unit. The units are connected together with quick disconnect electrical and air lines and umbilical cords. A ground fault interrupter provided personnel safety from electrical shorts.

The AP-5000 control unit contains the following:

1. Dual-inclined monometer (range 0-5" H_2O) for indicating the pitot tube velocity pressure and the orifice pressure drop.

2. Temperature control for the oven and probe.

3. A flow valve and a bypass valve for adjusting sampling rates.

4. Digital Temperature Indicator (DTI) which give an instant readout from six (6) points; stack, probe, oven, impinger outlet, meter inlet, meter outlet by the use of a selector switch.

5. Umbilical cords of (50 and 100 ft lengths) which interconnect the control and sampling units.

6. Communications sets are wired through control unit, umbilical cord to the sampling unit*.

The sampling unit is made up of three distinct sections; impinger case, oven and probe. All three sections can be converted to form one sampling unit or can be separated for unusual sampling conditions. Below are the individual component descriptions:

1. Probe Sheath - Made of 316 stainless steel. The nozzle end is packed with asbestos string. The ball joint (sampling unit) end has a woven teflon O Ring as packing material.

2. Probe liner - 5/8" O.D. medium wall glass (pyrex) or stainless steel (316) tubing logarithmically wrapped with nicrome heating element, having a resistance of 2 ohms/ft. The liner is insulated with fiberglass and asbestos with a type K thermocouple imbedded for sensing the probe temperature.

3. Filter Frit - Porous glass frit (coarse) banded to silicone rubber.

4. Oven - Fiberglass insulated capable of maintaining 120°C (248°F) in cold weather (0°C).

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*Separate communication system used during this test program.

The vacuum unit (pump) is capable of drawing a high vacuum (50 cm Hg) and a moderate volume (14 lpm) of air. The pump is rotary fiber vane type which does not require lubrication, but oil bath filters are used for pump protection.

APPENDIX D

Calibration Data

APPENDIX D
CALIBRATION DATA

Dry Gas Meter Calibration by outside source

Control Module # 2 Make AP 5000

DGM Serial # 706954

Calibrated by PUBLIC SERVICE On FEB 3 1977

DGM adjusted (yes/no) yes

Calibration:	IN	OUT
Capacity Run	993	999
Check (40%) Run	99.4	999

Personnel who obtained calibration RICHARD E. WOODWARD
Date FEB 7, 1977

Comments:
CALIBRATION ON ROOTS ROCKWELL DRY GAS METERS

Dry Gas Meter Calibration by outside source

Control Module # _____ Make _____

DGM Serial # _____

Calibrated by _____ On _____

DGM adjusted (yes/no) _____

Calibration:	IN	OUT
Capacity Run		
Check (40%) Run		

Personnel who obtained calibration _____
Date _____

Comments:

Orifice Meter Calibration

Date 3/23/77 Box No. SGT #2

Barometric pressure, P_b = 24.37 in. Hg Dry gas meter No. 706952

Orifice Manometer setting, ΔH in. H_2O	Gas volume wet test meter V_w, ft^3	Gas volume dry gas meter V_d, ft^3	Temperature: Wet Test Meter t_w, °F	Temperature: Dry gas meter Inlet t_{di}, °F	Temperature: Dry gas meter Outlet t_{do}, °F	Temperature: Dry gas meter Average t_d, °F	Time θ, min	* Y	DGM ΔH@
0.5	~~5~~	5.107		63	61	62	11.35		1.677
1.0	~~5~~	5.155		64	62	63	8:05		1.659
2.0	~~10~~	10.295		62	63	63	11.32		1.645
3.0	~~10~~								
4.0	~~10~~	10.241		63	64.5	64.5	5.15		1.725
						Average			1.677

Calculations ΔH	$\frac{\Delta H}{13.6}$	Y: $\frac{V_w}{V_d}\frac{P_b}{(P_b+\frac{\Delta H}{13.6})}\frac{(t_d+460)}{(t_w+460)}$	ΔH@: $\frac{0.0317\Delta H}{P_b(t_d+460)}\left[\frac{(t_w+460)\theta}{V_w}\right]^2$
0.5	0.0368		
1.0	0.0737		
2.0	0.147		
3.0	0.219		
4.0	0.294		

Where: V_w = Volume, wet test meter
V_d = Volume Dry gas meter
T_w = Temperature, Wet Test Meter
T_d = Temperature, Dry Gas Meter
P_b = Atmospheric Pressure, Inches Hg
θ = Time, minutes

Calibration by: [signature]

Checked by: _____

Remarks: * See Calibration by P.S.C

Orifice Meter Calibration

Date 5/4/77 Box No. 2 SGI

Barometric pressure, P_b = 24.62 in. Hg Dry gas meter No. 2

AT QUAIL

Orifice Manometer setting, ΔH in. H_2O	Gas volume wet test meter V_w, ft^3	Gas volume dry gas meter V_d, ft^3	Temperature: Wet Test Meter t_w, °F	Temperature: Dry gas meter Inlet t_{di}, °F	Temperature: Dry gas meter Outlet t_{do}, °F	Temperature: Dry gas meter Average t_d, °F	Time θ, min	Y	ΔH@
0.5	5	5.1	65	74	73	73.5	11.16	.99	1.65
1.0	5	5.11	65	78	76	77	8.1	.99	1.66
2.0	10	10 23	65.5	84	82	84.5	11.36	1.0	1.67
3.0	10	10.23	66	92	86	89	9.33	1.0	1.69
4.0	10	10 21	66.2	94	87	90.5	8.12	1.0	1.70
						Average		1.0	1.674

Calculations

ΔH	$\frac{\Delta H}{13.6}$	Y: $\frac{V_w}{V_d}\frac{P_b}{(P_b+\frac{\Delta H}{13.6})}\frac{(t_d+460)}{(t_w+460)}$	ΔH@: $\frac{0.0317\Delta H}{P_b(t_d+460)}\left[\frac{(t_w+460)}{V_w}\right]$
0.5	0.0368	6567 3.85 / 6601 8.592 = .99	.0000012 × 1373115 2 = 1.65
1.0	0.0737	66104.7 / 66247 02 = .99	.0000023 × 723350.2 = 1.66
2.0	0.147	1340559 / 133144 04 = 1.0	.0000047 × 356370.77 = 1.67
3.0	0.219	135163.3 / 133658 16 = 1.0	.0000067 × 240943 41 = 1.7
4.0	0.294	135533.1 / 133850.51 = 1.0	.0000093 × 183013 [illegible] = 1.70

Where: V_w = Volume, wet test meter
V_d = Volume Dry gas meter
T_w = Temperature, Wet Test Meter
T_d = Temperature, Dry Gas Meter
P_b = Atmospheric Pressure, Inches Hg
θ = Time, minutes

Calibration by: [signature]

Checked by: [signature]

Remarks:

4/24/77

US Environmental Protection Agency
National Enforcement Investigations Center-Denver

Calibration Pitot Tube: ID Number NBS-1 Cp .99
Type-S Pitot Tube ID Number: S-5

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
2.5	4.0	3.9	.783	.793	
	4.0	39	.783	.793	
	4.05	395	.778	.788	
2.0	3.05	3.1	.802	.795	
	3.1	3.1	.795	.795	
	3.1	305	.795	.802	
1.5	2.4	24	.783	.783	
	24	235	.783	.790	
	2.4	2.35	.783	.791	
1.0	1.6	1.6	.783	.783	
	1.6	1.6	.783	.783	
	1.6	1.6	.783	.783	
.80	1.3	1.25	.777	.78	
	1.29	1.25	.780	792	
	1.29	125	.783	.792	
.61	.95	.97	.793	.785	
	.98	.99	.781	.777	
	.98	1.0	.781	.773	
.41	.66	.66	.780	.786	
	.66	.65	.786	.786	
	.66	.66	.786	.786	
.21	.34	.33	.778	.789	
	.33	.34	.789	.778	
	.33	.33	.789	.789	
					Leg Average Cp

During Pitot Calibration:
probe sheath attached YES
nozzle attached YES
sampling isokinetically No

Performed By: [signature] Calibration Date: 3/21/77

US Environmental Protection Agency
National Enforcement Investigations Center-Denver

Calibration Pitot Tube: ID Number N35 1 Cp .99
Type-S Pitot Tube ID Number: 5-5

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
.11	.18	.16	.774	.821	
	.18	.15	.774	.845	
	.18	.15	.774	.845	
.05	.07	.075	.837	.838	
	.07	.07	.837	.837	
	.07	.07	.837	.837	
			24.434	23.831	
			.790	.746	
					Leg Average Cp

During Pitot Calibration:

probe sheath attached YES
nozzle attached YES
sampling isokinetically NO

Performed By: [signature] Calibration Date: 3/21/77

US Environmental Protection Agency
National Enforcement Investigations Center-Denver

Calibration Pitot Tube: ID Number NBS Cp 0.99

Type-S Pitot Tube ID Number: 5-5

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
0.73	1.15	1.10	0.787	0.806	Level and Zero OK
	1.10	1.10	0.806	0.806	Man. # 3
0.73	1.10	1.10	0.806	0.806	
0.50	0.77	0.765	0.798	0.800	
	0.77	0.765	0.798	0.800	
0.50	0.77	0.765	0.798	0.800	
0.150	0.23	0.23	[illegible]	[illegible]	micro manometer # 6
	0.23	0.233	[illegible]	[illegible]	Level & Zero OK
0.150	0.23	0.233	[illegible]	[illegible]	

0.799	0.801	Leg Average Cp

During Pitot Calibration:

- probe sheath attached yes
- nozzle attached yes
- sampling isokinetically no

Performed By: [signature]

Calibration Date: April 29, 77

US Environmental Protection Agency
National Enforcement Investigations Center-Denver

Calibration Pitot Tube: ID Number NBS-1 Cp .99
Type-S Pitot Tube ID Number: 8-1

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
2.55	4.1	4.2	.781	.771	
	4.2	4.2	.771	.771	
	4.2	4.2	.771	.771	
2.0	3.2	3.3	.783	.767	
	3.2	3.3	.783	.767	
	3.2	3.3	.783	.767	
1.5	2.45	2.5	.775	.767	
	2.45	2.45	.775	.775	
	2.45	2.5	.775	.767	
.99	1.7	1.7	.755	.755	
	1.65	1.7	.767	.755	
	1.65	1.65	.767	.767	
.79	1.3	1.35	.772	.757	
	1.3	1.3	.767	.767	
	1.3	1.3	.767	.767	
.58	.98	.97	.762	.766	
	.98	.98	.762	.762	
	.98	.98	.762	.762	
.39	.67	.67	.753	.753	
	.67	.67	.753	.753	
	.67	.67	.753	.753	
.21	.38	.37	.736	.746	
	.38	.37	.736	.746	
	.38	.37	.736	.746	
					Leg Average Cp

During Pitot Calibration:
probe sheath attached Yes
nozzle attached Yes
sampling isokinetically No

P_B = 24.69" Hg
T = 532.5 °R

Performed By: [signature]

Calibration Date: 3/22/77

.ivironmental Protection Agency
.cional Enforcement Investigations Center-Denver

Calibration Pitot Tube: ID Number NBS-1 Cp .99
Type-S Pitot Tube ID Number: 8-1

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
.11	.21	.21	.717	.717	
	.21	.21	.717	.717	
	.21	.21	.717	.717	
.055	.11	.11	.700	.700	
	.11	.11	.700	.700	
	.11	.11	.700	.700	
					Leg Average Cp

During Pitot Calibration:
probe sheath attached yes
nozzle attached yes
sampling isokinetically ~~not~~

Performed By: [signature] Calibration Date: 3/22/77

US Environmental Protection Agency
National Enforcement Investigations Center--Denver

Calibration Pitot Tube: ID Number NBS Cp 0.99
Type-S Pitot Tube ID Number: S-1

ΔP Standard Pitot	ΔP S-Type Pitot		Cp		Comments
	A leg	B leg	A	B	
0.15	0.240	0.245	0.783	0775	Level & Zero OK
	0.245	0.245	[illegible]	[illegible]	Micro-Man. #5
0.15	0.240	0.240	[illegible]	0.783	
0.40	0.62	0.62	[illegible]	[illegible]	Man. # 3
	0.62	0.625	[illegible]	[illegible]	
0.40	0.625	0.62	[illegible]	[illegible]	
0.72	1.20	1.20	[illegible]	[illegible]	
	1.20	1.20	[illegible]	[illegible]	
0.73	1.20	1.20	[illegible]	[illegible]	
1.20	1.80	1.80	[illegible]	[illegible]	
	1.80	1.80	[illegible]	[illegible]	
1.20	1.80	1.80	[illegible]	[illegible]	
1.80	~~2.75~~ 2.20	2.75	[illegible]	[illegible]	max. V for temp
	2.75	2.70	[illegible]	[illegible]	
1.80	2.75	2.75	[illegible]	[illegible]	
			0.790	0.790	Leg Average Cp

During Pitot Calibration:
probe sheath attached yes
nozzle attached yes
sampling isokinetically yes

Performed By: [signature]

Calibration Date: April 29, 1977

APPENDIX E

Source Tests

APPENDIX E

SOURCE TESTS AT MARATHON STEEL

4-13-77	0403	01	00003	4"	0.7326	0.7324	0.7319	0.0005	5-2-77
4-13-77	0403	02	00004	4"	0.7395	0.7392	0.7345	0.0047	5-2-77
4-13-77	0403	03	00005	4"	0.7432	0.7434	0.7397	0.0037	5-2-77
4-14-77	0402	01	00006	4"	0.7358	0.7354	0.7328	0.0026	5-2-77
4-14-77	0402	02	00007	4"	0.7419	0.7415	0.7408	0.0007	5-2-77
4-14-77	0402	03	00008	4"	0.7400	0.7397	0.7388	0.0009	5-2-77
4-15-77	0402	05	00009	4"	0.7351	0.7348	0.7342	0.0006	5-2-77
4-15-77	0402	04	00010	4"	0.7364	0.7359	0.7338	0.0021	5-2-77

Source Tests @ Marathon Steel

Particulate Analysis — Acetone Wash Samples (Method 5)

Sample Date	Station Number	Sequence Number	Beaker Number	ML of Sample	Desiccated Gross Wt.		Beaker Tare Wt.	Final Net Wt.	Final Weighing Date
					1st Wt. @ 24 Hrs.	2nd Wt. @ +6 Hrs			
4-12-77	BLANK	01	2	283	96.9102	96.9100	96.9086	0.0014	5-2-77
4-15-77	BLANK	01	6	302	98.1465	98.1467	98.1458	0.0009	5-2-77
4-20-77	BLANK	03	3	290	94.0138	94.0136	94.0132	0.0004	5-2-77
4-16-77	0401	01	5	225	91.3608	91.3612	91.2658	0.0954	5-2-77
4-16-77	0401	02	32	233	91.2185	91.2189	91.1257	0.0932	5-2-77
4-16-77	0401	03	15	198	97.3710	97.3709	97.3246	0.0463	5-2-77
4-14-77	0402	01	20	250	98.3403	98.3405	98.3264	0.0141	5-2-77
4-14-77	0402	02	31	228	95.1914	95.1916	95.1869	0.0047	5-2-77
4-14-77	0402	03	30	225	95.5401	95.5408	95.5257	0.0151	5-2-77
4-15-77	0402	04	16	262	93.2828	93.2826	93.2573	0.0253	5-2-77
4-15-77	0402	05	24	245	96.3812	96.3814	96.3745	0.0069	5-2-77
4-13-77	0403	01	46	240	92.5007	92.5010	92.4885	0.0125	5-2-77
4-13-77	0403	02	33	212	96.0785	96.0788	96.0656	0.0132	5-2-77
4-13-77	0403	03	35	208	94.2281	94.2280	94.2105	0.0175	5-2-77

Source Tests @ Marathon Steel

Particulate Analysis — Filters (Method 5)

Sample Date	Station Number	Sequence Number	Filter Number	Filter Size	Desiccated Gross Wt: 1st Wt. @ 24 Hrs.	Desiccated Gross Wt: 2nd Wt. @ + 6 Hrs.	Filter Tare Wt.	Final Net Wt.	Final Weighing Date
4-16-77	0401	01	00011	4"	0.7560	0.7554	0.7345	0.0209	5-2-77
4-16-77	0401	02	00012	4"	0.7620	0.7625	0.7377	0.0248	5-2-77
4-16-77	0401	03	00013	4"	0.7829	0.7827	0.7407	0.0420	5-2-77

APPENDIX F

Chain of Custody Record

APPENDIX F

ENVIRONMENTAL PROTECTION AGENCY
Office Of Enforcement
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
Building 53, Box 25227, Denver Federal Center
Denver, Colorado 80225

CHAIN OF CUSTODY RECORD

SURVEY

SAMPLERS: *(Signature)*

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE Water Comp	SAMPLE TYPE Water Grab	SAMPLE TYPE Air	SEQ NO	NO OF CONTAINERS	ANALYSIS REQUIRED

Relinquished by: *(Signature)*	Received by: *(Signature)*	Date/Time
Relinquished by: *(Signature)*	Received by: *(Signature)*	Date/Time
Relinquished by: *(Signature)*	Received by: *(Signature)*	Date/Time
Relinquished by: *(Signature)*	Received by Mobile Laboratory for field analysis: *(Signature)*	Date/Time
Dispatched by: *(Signature)* / Date/Time	Received for Laboratory by:	Date/Time
Method of Shipment:		

Distribution: Orig. – Accompany Shipment
1 Copy – Survey Coordinator Field Files

GPO 831-464

ENVIRONMENTAL PROTECTION AGENCY
Office Of Enforcement
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
Building 53, Box 25227, Denver Federal Center
Denver, Colorado 80225

CHAIN OF CUSTODY RECORD

URVEY	SAMPLERS: (Signature)
[illegible] Steel Co	[illegible]

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE Water Comp	Grab	Air	SEQ NO	NO OF CONTAINERS	ANALYSIS REQUIRED
[illegible]	[illegible] Blank	[illegible]	[illegible]		✓	✓	01	1	[illegible]
[illegible]	[illegible] 3	[illegible]	[illegible]	✓		✓	1	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	✓		✓	1	1	[illegible]
[illegible]	[illegible] #4	[illegible]	[illegible]	✓		✓	[illegible]	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	✓		✓	2	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	✓		✓	3	1	[illegible]
[illegible]	[illegible]	[illegible]	1510	✓		✓	3	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	✓		[illegible]	1	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 7	[illegible]	[illegible]	✓		✓	[illegible]	1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	✓		✓	3	1	[illegible]
[illegible]	[illegible]	[illegible]	1115	✓		✓	3	1	[illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[illegible signature]		[illegible]/25/77
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)	Date/Time

Dispatched by: (Signature)	Date/Time	Received for Laboratory by:	Date/Time
		[illegible signature]	[illegible]/25/77

Method of Shipment:

Distribution: Orig. – Accompany Shipment
1 Copy – Survey Coordinator Field Files

GPO 831-464

ENVIRONMENTAL PROTECTION AGENCY
Office Of Enforcement
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
Building 53, Box 25227, Denver Federal Center
Denver, Colorado 80225

CHAIN OF CUSTODY RECORD

SURVEY: Martinez Flood

SAMPLERS: (Signature) [signature]

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE: Water Comp	SAMPLE TYPE: Water Grab	SAMPLE TYPE: Air	SEQ NO	NO OF CONTAINERS	ANALYSIS REQUIRED
[illegible]	OO1 Stub #9	4/15/77	1300		X		5	2	[illegible]
[illegible]	A.T. Blank #2	4/15/77	1750		X		1	1	[illegible]

Relinquished by: (Signature) [signature]	Received by: (Signature)	Date/Time 4/21/77
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)	Date/Time
Dispatched by: (Signature) / Date/Time	Received for Laboratory by: D. Dill	Date/Time 4/25/77
Method of Shipment:		

Distribution: Orig. – Accompany Shipment
1 Copy – Survey Coordinator Field Files

GPO 831-464

APPENDIX G

Particulate Field Data

ICU _ IEI A

Plant [illegible]

Run No. #1 C4C1

Location Tempo Cls

Date 4/16/77

Operator J+ Perein

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.02

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 8:57

End Time ______

Ambient Temp °F 75

Bar. Press. "Hg 27.71

Assumed Moisture % 0

Probe Tip Dia. In. .215

Pitot Tube No. 5-5 (.79)

Probe Length/type 5' glass

Filter No. ____, ____, ____

Leak check to 15" Hg - good .015 cfm

FYRITE
O_2 - 20.5%
CO_2 - 0%

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
	0	188.31											
A-14	3	190.30	.73	1.18	1.18	84	83	2.2	133	266	271	206	666
A-13	6	191.97	.55	.89	.89	86	85	1.8	128	262	259	203	663
12	9	193.78	.67	1.08	1.08	86	88	2.2	130	264	256	201	661
11	12	195.68	.70	1.13	1.13	84	86	2.3	125	266	255	201	661
10	15	197.50	.68	1.09	1.09	86	87	2.1	123	266	255	198	658
9	18	198.96	.38	.61	.61	87	90	1.5	123	264	255	195	655
8	21	200.69	.62	1.00	1.00	86	89	2.0	125	263	258	197	657
7	24	202.13	.40	.65	.65	87	90	1.5	124	264	260	196	656
6	27	203.50	.37	.60	.60	87	89	1.5	127	265	261	196	656
5	30	204.97	.43	.70	.70	87	89	1.5	127	265	265	196	656
4	33	206.33	.35	.57	.57	89	90	1.5	130	267	267	201	661
3	36	207.67	.35	.57	.57	90	91	1.5	134	269	270	203	663
2	39	208.97	.33	.53	.53	91	90	1.3	136	270	272	207	667
1	42	210.22	.30	.48	.48	94	95	1.2	139	272	263	207	667

Leak check to 7" Hg - good .014 cfm

Comments:

APPENDIX G

Station 0401 Run #1

Point	Clock	Dry Gas Meter, CF 216-22	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	St Te (°
				Desired	Actual	Outlet	Inlet						
B-14	45	212.17	.35	.57	.57	86	86	1.2	128	233	258	186	(
13	48	213.53	.42	.68	.68	89	91	1.4	137	266	269	208	(
12	51	215 04	.47	.76	.76	99	97	1.5	149	275	270	212	(
11	54	216 56	.45	.72	.72	96	97	1.5	141	273	269	211	
10	57	218.16	.52	.84	.84	98	93	18	136	275	260	207	(
9	60	219.76	.49	.80	.80	99	92	1.7	135	264	249	205	(
8	63	221.51	.65	1.05	1.05	88	91	2.0	135	267	274	206	(
7	66	223.28	.62	1.0	1.0	90	93	2.0	136	264	275	204	
6	69	225.02	.57	.96	.96	96	94	2.0	138	265	264	215	
5	72	226.77	.61	.99	.99	91	93	2.0	139	267	266	217	(
4	75	228.57	.64	1.1	1.1	97	93	2.0	137	265	265	207	(
3	78	230.17	.47	.75	.75	91	94	1.6	138	267	265	212	(
2	81	231.95	.63	1.0	1.0	92	94	2.0	138	267	270	208	(
1	84	233.48	.45	.72	.72	92	95	1.5	138	268	272	250	
			Leak Check To			5 Hg	.006	CFM					
					0.822	90.2857	90.5926						

Comments:

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 4/15/77
Address: [illegible] Operators: ______
Station No.: 0401 : ______
Run No.: 77/ Ambient Temperature: 85°F
Barometric Pressure: 28 Sample Box Number: 1

Impinger 1

Final Volume 100 ml of water
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 93 ml of water
Initial Volume 100 ml
Volume collected -7 ml

Impinger 3

Final Volume 0 ml of empty
Initial Volume 0 ml
Volume collected 0 ml

Impinger ___

Final Volume ______ ml of ______
Initial Volume ______ ml
Volume collected ______ ml

Impinger ___

Final weight 713.5 gm of silica gel
Initial weight 703.5 gm
Weight collected 10 gm

Total Volume Collected 3 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
11	___ gm	___ gm	___ gm
	___ gm	___ gm	___ gm

Cleanup performed by [illegible signature] on 4/16/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Marathon Steel
LOCATION Tempe, Arizona
TEST NUMBER 0401
DATE 4/16/77
TYPE FACILITY Steel Mill
CONTROL DEVICE Bag House

HOURS OF OBSERVATION 1/4 Hr
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE 3/30/77
OBSERVER AFFILIATION Co. EPA
POINT OF EMISSIONS Stack
HEIGHT OF DISCHARGE POINT 40 Ft.

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	50'			50'
Direction from Discharge	East			East
Height of Observation Point	Ground			Ground
BACKGROUND DESCRIPTION	Clear Sky			Clear Sky
WEATHER CONDITIONS Wind Direction	~~Calm~~ West			West
Wind Speed	0 5			0-5
Ambient Temperature	75° 80°			75-80°
SKY CONDITIONS (clear, overcast, % clouds, etc.)	Clear			Clear
PLUME DESCRIPTION Color	White			White
Distance Visible	20' 25'			10' 15'
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD

PAGE ___ OF ___

COMPANY Marathon Steel
LOCATION Tempe, Arizona
TEST NUMBER 001
DATE 4/11/77

OBSERVER [illegible]
TYPE FACILITY Steel Mill
POINT OF EMISSIONS Stack

5.6250

Hr.	Min.	Seconds 0	15	30	45	Steam Plume (check if applicable) Attached	Detached	COMMENTS
	0	5	5	0	5			
	1	0	5	5	0			
	2	0	0	0	0			
	3	0	5	5	5			
	4	5	5	10	5			
	5	5	5	5	5			
	6	10	10	5	5			
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued)

PAGE ___ OF ___

COMPANY ______
LOCATION ______
TEST NUMBER ______
DATE ______

OBSERVER ______
TYPE FACILITY ______
POINT OF EMISSIONS ______

Hr.	Min.	Seconds 0	15	30	45	Steam Plume (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74;8:45 am]

ART DAT

Plant [illegible]	VERY IMPORTANT - FILL IN ALL BLANKS	Ambient Temp °F 85
Run No. #2 C4C1	Read and record at the start of each test point.	Bar. Press. "Hg 28.81
Location Tempe, Ariz		Assumed Moisture % 0
Date 4/16/77	Time: Start Time 1140	Probe Tip Dia. In. .215
Operator [illegible]	End Time	Pitot Tube No. 5-5 ([illegible])
Sample Box No. 1		Probe Length/type [illegible]
Meter Box No. 2		Filter No. 12, ,
Meter Δ H 1.68		
C Factor 1.15		

LEAK TEST AT 20" Hg — .012 CFM

Point	Clock	Dry Gas Meter, CF 234.42	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
B-14	3	235.75	0.45	0.73	0.73	96	91	2.0	153	[illegible]	275	206	666
13	6	237.50	0.50	0.80	0.80	93	93	2.0	135	261	270	217	677
12	9	239.2[illegible]	0.60	0.96	0.96	95	94	2.0	137	264	270	222	682
11	12	240.66	0.37	0.60	0.60	94	95	2.0	141	263	267	229	689
10	15	242.33	0.40	0.64	0.64	94	94	2.0	135	270	264	230	690
9	18	243.80	0.63	1.00	1.00	93	95	2.0	147	268	266	233	693
8	21	245.0[illegible]	0.28	0.45	0.45	94	96	2.0	145	270	267	234	694
7	24	246.50	0.30	0.48	0.48	100	101	1.5	149	275	274	251	699
6	27	247.65	0.36	0.58	0.58	77	78	1.5	149	275	269	237	697
5	30	249.12	0.40	0.64	0.64	96	97	2.0	148	275	266	235	695
4	33	250.52	[illegible]	[illegible]	0.64	103	101	1.5	—	—	—	—	
3	36	252.06	0.42	0.68	0.68	103	101	1.5	148	273	271	242	702
2	39	253.30	0.35	0.58	0.58	97	95	1.5	150	281	275	236	696
1	42	254.34	0.15	0.25	0.25	97	98	1.0	149	280	277	230	690
		[illegible]											

Comments:

Sheet 2 of 2

Point	Clock	Dry Gas Meter, CF 255.07	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Sta Ter °R (°F
				Desired	Actual	Outlet	Inlet						
A 14	3	256.76	.60	.88	.88	98	97	2.0	146	272	341	226	69
13	6	258.42	.58	.94	.94	98	99	2.0	148	282	384	225	68
12	9	260.16	.58	.98	.96	100	100	2.3	146	283	350	230	69
11	12	261.81	.50	.80	.80	99	100	2.0	145	280	376	226	68
10	15	263.20	.35	.57	.57	99	100	1.5	141	280	323	220	68
9	18	264.84	.55	.88	.88	99	101	2.0	137	274	306	214	67
8	21	266.39	.45	.72	.72	99	101	1.9	135	269	293	210	67
7	24	267.77	.35	.56	.56	99	100	1.5	132	261	275	204	66
6	27	269.08	.32	.51	.51	99	100	1.5	130	257	268	201	66
5	30	270.42	.34	.55	.55	98	100	1.5	129	254	266	202	66
4	33	271.82	.37	.59	.59	100	100	1.7	126	254	263	207	66
3	36	273.17	.35	.56	.56	100	99	1.5	126	252	255	204	66
2	39	274.53	.35	.56	.56	100	100	1.5	126	248	255	198	65
1	42	275.73	.25	.40	.40	98	100	1.1	123	244	257	192	64

Comments: LEAK CHECK 1.3" Hg / .008 / 1.6617 / 97.5714 / 98.1785 / 68.2

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Steel Co. Date: April 6, 1977
Address: Temple Avenue Operators: [illegible]
Station No.: C-4A
Run No.: 2 Ambient Temperature: 60
Barometric Pressure: 29" Sample Box Number: 1

Impinger 1

Final Volume 100 ml of Distilled H2O
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 94 ml of Distilled H2O
Initial Volume 100 ml
Volume collected -6 ml

Impinger 3

Final Volume 0 ml of
Initial Volume Empty ml
Volume collected 0 ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 759.0 gm of Silica Gel
Initial weight 752.1 gm
Weight collected 7.0 gm

Total Volume Collected 1 ml

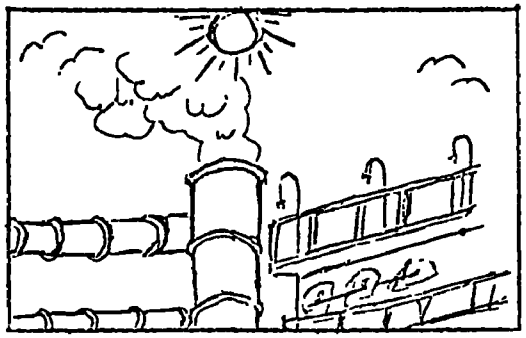
Filters

No.	Final Weight	Tare Weight	Weight Collected
12	gm	gm	gm
	gm	gm	gm

Cleanup performed by [illegible] on 4/16/77

RECORD OF VISUAL DETERMINATION OF OPACITY PAGE ___ OF ___

COMPANY MARATHON STEEL CO.
LOCATION STACK # 1
TEST NUMBER 2
DATE 4/16/77
TYPE FACILITY STEEL MILL
CONTROL DEVICE BAG HOUSE



HOURS OF OBSERVATION 11.45 - 11.51 AM
OBSERVER S M NEMEC
OBSERVER CERTIFICATION DATE ___
OBSERVER AFFILIATION U.S E.P.A NEIC
POINT OF EMISSIONS STACK
HEIGHT OF DISCHARGE POINT ___

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	100 FT			
Direction from Discharge	S			
Height of Observation Point	GRND			
BACKGROUND DESCRIPTION	SKY			
WEATHER CONDITIONS Wind Direction	E			
Wind Speed	CLM			
Ambient Temperature	85°F			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	CLR			
PLUME DESCRIPTION Color	BRN			
Distance Visible				
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ___ to ___ % opacity

The source was/was not in compliance with ___ at the time evaluation was made.

OBSERVATION RECORD PAGE ___ OF ___

COMPANY MARATHON STEEL
LOCATION [illegible]
TEST NUMBER [illegible]
DATE 4/6/77

OBSERVER S.H. NEMEC
TYPE FACILITY STEEL MILL
POINT OF EMISSIONS STACK

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15	5	5	5	5			
	16	5	5	5	5			
	17	5	5	10	15			
	18	15	10	10	15			
	19	10	10	10	15			
	20	10	[illegible]	[illegible]	[illegible]			
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY MARATHON STEEL
LOCATION STACK # 1
TEST NUMBER # 2
DATE 4/6/77

OBSERVER S.H. NEMEC
TYPE FACILITY STEEL MILL
POINT OF EMISSIONS STACK

9.375

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
11	45	5	5	5	5			
11	46	5	5	5	5			
11	47	5	5	10	15			
11	48	20	20	20	15			
11	49	15	10	10	15			
11	50	10	5	5	5			
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74,8:45 am]

RTI [illegible] ATA

Plant [illegible]

Run No. #3 [illegible]

Location [illegible]

Date 4/11/77

Operator [illegible]

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.65

C Factor 1.15

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1420

End Time 1630

Ambient Temp °F 80

Bar. Press. "Hg 28.81

Assumed Moisture % 6

Probe Tip Dia. In. .215

Pitot Tube No. 5-5

Probe Length/type 5 ft-glass

Filter No. 13, ,

LEAK TEST @ 1430 20" Hg = 0.005 cfm

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
		276.79											
A-14	3	278.46	0.55	0.90	0.90	128	128	1.5	130	230	275	182	642
13	6	280.22	0.60	0.96	0.96	131	131	2.0	135	250	255	208	668
12	9	[illegible]	.50	[illegible]	[illegible]	134	132	2.0	141	[illegible]	231	[illegible]	668
11	12	[illegible]	0.41	0.62	0.65	133	133	2.0	140	[illegible]	[illegible]	204	664
10	15	[illegible]	0.65	1.05	1.05	134	133	2.0	140	[illegible]	[illegible]	197	657
9	18	[illegible]	0.76	1.13	1.10	134	135	2.0	141	[illegible]	[illegible]	195	655
8	21	[illegible]	0.70	1.13	1.10	134	134	2.0	143	261	257	184	644
7	24	290.40	0.45	0.72	0.72	155	134	2.0	150	270	265	207	667
6	27	291.82	0.36	0.55	0.58	135	136	2.0	151	272	263	214	674
5	30	293.16	0.33	0.54	0.54	135	135	2.0	147	271	263	[illegible]	215 675
4	33	294.43	0.30	0.48	0.48	137	134	2.0	149	271	261	214	674
3	36	295.83	0.39	0.61	0.61	136	135	1.5	148	273	264	216	676
2	39	297.09	0.30	0.48	0.48	137	136	1.5	151	275	265	209	669
1	42	298.15	0.20	0.32	0.32	134	134	1.5	144	278	264	206	666
			LEAK Check @ 1645 11" Hg = 0.001 CFM										

Comments:.

0461

sheet 2 of 2

Run #3

Point	Clock	Dry Gas Meter, CF 298.42	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °R (°F+
				Desired	Actual	Outlet	Inlet						
B-14	45	300.09	.55	.90	.90	134	133	1.8	149	287	278	224	6.8
13	48	301.80	.56	.90	.90	137	136	1.8	155	289	276	239	6.9
12	51	303.22	.33	.55	.55	142	137	1.3	155	285	266	235	6.9
11	54	304.72	.43	.69	.69	137	136	1.5	155	281	262	238	6.9
10	57	306.02	.30	.48	.48	134	134	1.1	152	271	260	227	6.8
9	60	307.29	.30	.48	.48	134	133	1.1	152	262	257	222	6.8
8	63	308.81	.45	.72	.72	138	132	1.5	149	252	255	214	6.7
7	66	310.11	.30	.48	.48	133	132	1.1	149	248	258	210	6.7
6	69	311.43	.33	.51	.51	133	133	1.1	149	250	266	214	6.7
5	72	312.91	.42	.68	.68	133	133	1.3	152	252	262	213	6.7
4	75	314.27	.33	.54	.54	133	132	1.1	145	253	257	210	6.7
3	78	315.63	.34	.55	.55	132	132	1.1	147	255	255	211	6.7
2	81	317.14	.43	.70	.70	144	131	1.4	146	255	251	211	6.7
1	84	318.21	.15	.24	.24	131	130	1.0	145	253	246	197	6.5
				LEAK Check @		1630	11" Hg	=.012					
				.6675		134.7142	133.3571						671.6

Comments:

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 4/16/77
Address: Tyler, Tx Operators: _____
Station No.: 0401 : _____
Run No.: 3 Ambient Temperature: 85
Barometric Pressure: 28.77 Sample Box Number: 1

Impinger 1

Final Volume 160 ml of water
Initial Volume 100 ml
Volume collected 60 ml

Impinger 2

Final Volume 97 ml of water
Initial Volume 100 ml
Volume collected -7 ml

Impinger 3

Final Volume 0 ml of empty
Initial Volume 0 ml
Volume collected 0 ml

Impinger ~~__~~

Final Volume _____ ml of _____
Initial Volume _____ ml
Volume collected _____ ml

Impinger __

Final weight 7220 gm of silica gel
Initial weight 7135 gm
Weight collected 85 gm

Total Volume Collected 1.5 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
13	_____ gm	_____ gm	_____ gm
_____	_____ gm	_____ gm	_____ gm

Cleanup performed by [illegible] on 4/16/77

RECORD OF VISUAL DETERMINATION OF OPACITY PAGE ___ OF ___

COMPANY Marathon Steel
LOCATION Tempe Arizona
TEST NUMBER 0001 #3
DATE 4/16/77
TYPE FACILITY Steel Mill
CONTROL DEVICE Bag House

HOURS OF OBSERVATION ____
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE 4/13-177
OBSERVER AFFILIATION US EPA
POINT OF EMISSIONS Stack
HEIGHT OF DISCHARGE POINT ~40'

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	50'			50'
Direction from Discharge	SW			SW
Height of Observation Point	Ground			Ground
BACKGROUND DESCRIPTION	CLEAR SKY			CLEAR SKY
WEATHER CONDITIONS Wind Direction	West			West
Wind Speed	0-5Kts			0-5Kts
Ambient Temperature	85-90°			85-90°
SKY CONDITIONS (clear, overcast, % clouds, etc.)	CLEAR			CLEAR
PLUME DESCRIPTION Color	White			White
Distance Visible	20'-25'			20'-25'
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ___ to ___ % opacity

The source was/was not in compliance with ___ at the time evaluation was made.

FEDERAL REGISTER, VOL. 39, NO. 219—TUESDAY, NOVEMBER 12, 1974

OBSERVATION RECORD PAGE ___ OF ___

COMPANY Marathon Steel OBSERVER A Fish
LOCATION Cairo, Illinois TYPE FACILITY Electric Arc
TEST NUMBER Unit #3 POINT OF EMISSIONS Stack
DATE 4/11/77

6.4553

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	0	5	5	5	5			
	1	5	5	5	5			
	2	5	5	5	5			
	3	5	10	10	10			
	4	5	10	10	10			
	5	10	5	5	5			
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY OBSERVER
LOCATION TYPE FACILITY
TEST NUMBER POINT OF EMISSIONS
DATE

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74;8:45 am]

CUL ELL

Plant Marathon Steel Co

Run No. 1

Location C402

Date Apr. 14, 1977

Operator JLW

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.10

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 0825

End Time 1010

Ambient Temp °F 80

Bar. Press. "Hg 25.55

Assumed Moisture % 0

Probe Tip Dia. In. 0.215

Pitot Tube No. S-1

Probe Length/type 8'/Glass

Filter No. 6

@ 0750 Leak Check @ 13.5" Hg 0.005 cfm

S

E | ΔP B C D CF 000000 | W

Point #1 Closest to port

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
Start		927.52											
E-8	2	928.87	0.65	1.10	1.10	68	70	3.0	72	241	261	118	578
E-7	4	930.17	0.73	1.23	1.25	67	69	3.0	72	255	261	114	574
E-6	6	931.42	0.65	1.10	1.10	66	70	3.0	71	252	255	111	571
E-5	8	932.71	0.69	1.20	1.20	67	71	3.0	70	257	255	107	567
E-4	10	934.06	0.81	1.36	1.35	68	72	3.0	69	254	255	115	575
E-3	12	935.40	0.76	1.28	1.30	68	72	3.0	68	255	251	109	569
E-2	14	936.72	0.72	1.21	1.20	68	73	3.0	69	255	256	109	569
E-1	16	937.63	0.35	0.55	0.55	68	73	3.0	69	252	253	115	575
E-8	2	938.72	0.51	0.85	0.85	70	74	3.0	71	261	259	119	579
E-7	4	939.83	0.55	0.93	0.93	70	74	3.0	73	254	263	115	575
E-6	6	941.05	0.55	0.93	0.93	70	74	3.0	73	250	264	117	577
E-5	8	942.13	0.59	[illegible]		71	75	3.0	73	254	26[illegible]	117	577
E-4	10	943.21	0.51	0.85	0.85	71	75	3.0	74	255	255	115	575
E-3	12	944.38	0.60	1.01	1.00	71	75	3.0	74	263	253	113	573
E-2	14	945.49	0.52	0.87	0.90	71	76	3.0	74	260	259	117	587
E-1	16	946.64	0.47	0.76	0.76	71	76	3.0	75	266	254	121	594

Comments: 1. [illegible]

C402

Run 1

Sheet 2 of 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+46
				Desired	Actual	Outlet	Inlet						
D-8	2	947.55	0.35	0.59	0 59	72	76	2.5	76	262	254	125	558
D-7	4	948.43	0.30	0.50	0 50	72	76	2 5	76	263	255	126	586
D-6	6	949.34	0.39	0.63	0.63	72	76	2.5	77	259	254	124	584
D-5	8	950.18	0.27	0.45	0.45	73	77	2.5	76	269	255	127	587
D-4	10	951.12	0.39	0 64	0 64	73	77	2.5	77	268	256	143	603
D-3	12	952 07	0.39	0.64	0.64	81	84	2.5	78	273	259	154	614
D-2	14	952.90	0.25	0.44	0.44	82	85	2.5	83	276	260	159	619
D-1	16	953.66	0.25	0.44	0.44	74	77	2.5	78	274	260	145	605
B-8	2	954.47	0 25	0 44	0.44	84	85	2 5	102	278	260	151	611
C-7	4	955.35	0.33	0 56	0 56	84	86	2.5	102	275	261	152	612
C-6	6	956.24	0.33	0.56	0.56	85	87	2 5	107	259	258	159	619
C-5	8	957.09	0.30	0.50	0.50	85	88	2.5	109	272	257	162	622
C-4	10	957.92	0.27	0.45	0.45	84	87	2.5	105	251	254	155	615
C-3	12	958.70	0.25	0.42	0.42	85	87	2.0	106	260	254	155	615
C-2	14	959.47	0.25	0.42	0.42	85	87	2.0	104	259	251	160	620
C-1	16	960.40	0.55	0.59	0.59	87	88	2.0	106	245	247	156	614

Comments:

3/16/77

Sheet 5 of 5

402

Run 1

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+46
				Desired	Actual	Outlet	Inlet						
B-8	2	961.19	0.28	0 47	0.47	87	89	2.0	109	257	253	161	6.21
B-7	4	962.09	0.35	0 59	0 59	86	89	2.0	106	245	247	161	1.21
B-6	6	962.96	0.30	0.50	0.50	88	90	2.0	106	246	250	163	6.23
B-5	8	963 83	0.32	0 52	0 52	87	90	2.0	107	238	246	158	6.15
B-4	10	964.64	0 27	0.45	0.45	88	89	2.0	105	238	244	157	6.17
B-3	12	965.32	0 16	0 27	0 27	88	90	2.0	106	242	246	165	6.25
B-2	14	966.01	0.20	0.34	0.34	87	90	2.0	105	236	244	160	6.20
B-1	16	966 55	0 10	0.17	0.17	89	90	2.0	106	243	247	159	6.19
A-8	2	967.41	0.30	0 50	0.50	89	91	2 0	106	240	247	157	6.17
A-7	4	968.26	0.30	0.50	0 50	89	91	2 0	106	237	246	158	6.18
A-6	6	968.87	0 20	0.35	0.35	90	90	2.0	106	235	247	168	6.18
A 5	8	969 81	0.30	0 50	0.50	90	91	2.0	107	243	249	173	6.33
A-4	10	970.65	0.30	0 50	0.50	90	91	2.0	107	244	249	170	6.30
A-3	12	971.37	0.20	0 34	0.34	90	91	2 0	109	246	249	173	6.33
A-2	14	972.00	0 15	0 25	0.25	89	90	2.0	105	241	247	174	6.34
A-1	16	972 42	0.10	0.17	0 17	88	90	2.0	107	229	245	164	6.24

Comments:

Leak check @10.1 @10.5" Hg 0.003 cfm

0.645 | 79.1666 | 80.0833

3/16/77

602.416

SAMPLE CLEANUP SHEET

Plant: Houston Steel Date: 4/14/77
Address: [illegible] Operators:
Station No.: 0902 :
Run No.: #1 Ambient Temperature: 70
Barometric Pressure: 29.55 Sample Box Number: 1

Impinger 1

Final Volume 104 ml of WATER
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 92 ml of WATER
Initial Volume 100 ml
Volume collected -8 ml

Impinger 3

Final Volume 6 ml of WATER
Initial Volume 6 ml
Volume collected 0 ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 709.5 gm of SILICA GEL
Initial weight 674.0 gm
Weight collected 35.5 gm

Total Volume Collected 17.5 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
6	gm	gm	gm
	gm	gm	gm

Cleanup performed by R.C. Foreman on 4/14/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Bethlehem Steel
LOCATION Terre Haute
TEST NUMBER EPA 0402
DATE 4/14/77
TYPE FACILITY Steel mill
CONTROL DEVICE Baghouse

HOURS OF OBSERVATION 1/4
OBSERVER C. Lee Cate
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION U.S.E.P.A.
POINT OF EMISSIONS Baghouse Stack
HEIGHT OF DISCHARGE POINT 200 Ft.

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	400 Ft			
Direction from Discharge	SE			
Height of Observation Point	20 Ft			
BACKGROUND DESCRIPTION	Dust			
WEATHER CONDITIONS Wind Direction	SW			
Wind Speed	2-4 mph			
Ambient Temperature	82°F			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	Partly Cloudy			
PLUME DESCRIPTION Color	Grey			
Distance Visible	Unlim			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity Sum	Opacity Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible]
LOCATION [illegible]
TEST NUMBER [illegible]
DATE 11/10/71

OBSERVER [illegible]
TYPE FACILITY [illegible]
POINT OF EMISSIONS [illegible]

1.8750

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	0	0	0	0	0	X		
	1	0	0	0	0			[illegible]
	2	2	15	5	5			[illegible]
	3	5	5	5	5			
	4	0	0	0	0			
	5	0	0	0	0	↓		
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY
LOCATION
TEST NUMBER
DATE

OBSERVER
TYPE FACILITY
POINT OF EMISSIONS

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74;8:45 am]

ICU IEI A

Plant Northern Steel Co

Run No. 2

Location 0402

Date Nov. 14, 77

Operator J.C.W.S

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.10

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1040

End Time 1230

Ambient Temp °F 50

Bar. Press. "Hg 28.55

Assumed Moisture % 0

Probe Tip Dia. In. 0.215

Pitot Tube No. S-1

Probe Length/type 8'/Glass

Filter No. 7

Leak Chk @ 1030 @ 15" Hg = 0.008 cfm

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
Start		972.90											
A-8	2	973.58	0.25	0.42	0.42	81	81	2	87	240	245	148	608
A-7	4	974.40	0.25	0.42	0.42	66	66	2	88	240	249	154	614
A-6	6	975.28	0.27	0.46	0.46	67	67	2	91	247	251	157	617
A-5	8	976.09	0.27	0.46	0.46	67	68	2	90	246	250	154	614
A-4	10	976.77	0.18	0.30	0.30	66	67	2	88	234	245	145	605
A-3	12	977.47	0.20	0.34	0.34	67	67	2	89	237	245	147	607
A-2	14	978.11	0.15	0.30	0.30	67	67	2	88	232	244	145	606
A-1	16	978.77	0.15	0.30	0.30	67	67	2	88	232	243	144	604
B-8	2	979.52	0.20	0.34	0.34	68	68	2	90	235	242	150	610
B-7	4	980.44	0.38	0.64	0.64	68	68	2	91	241	247	149	609
B-6	6	981.32	0.33	0.53	0.53	69	70	2	93	245	249	150	610
B-5	8	982.11	0.25	0.42	0.42	68	69	2	93	241	247	155	615
B-4	10	982.91	0.26	0.44	0.44	68	69	2	93	245	246	152	612
B-3	12	983.72	0.20	0.34	0.34	69	70	2	94	254	248	159	619
B-2	14	984.33	0.20	0.34	0.34	70	71	2	95	260	254	157	617
B-1	16	984.99	0.15	0.30	0.30	69	70	2	91	257	255	155	613

Comments:

Sheet 2 of 2

0462
Run 2

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
C 8	2	985.68	0 20	0·34	0 34	70	70	2.0	101	259	266	159	619
C-7	4	986.79	0 28	0.48	0 48	69	69	2..	97	247	265	156	616
C-6	6	987.47	0 17	0.28	0.25	70	70	2.0	99	251	263	161	611
C-5	8	988·28	0·30	0.49	0 49	70	70	2..	98	249	256	151	611
C 4	10	989.07	0·27	0.44	0.44	71	71	2.0	99	253	257	150	610
C·3	12	989.76	0.20	0.33	0.33	70	71	2.0	99	259	260	156	616
C.2	14	990.53	0·26	0.43	0.43	70	70	2.0	99	258	261	156	616
C·1	16	991.24	0 20	0·33	0·33	70	71	2 c	99	259	259	153	613
D-8	2	992.16	0.37	0.61	0 61	70	70	2.0	99	248	253	151	611
D-7	4	993.06	0·35	0 54	0.54	71	71	2 0	98	247	251	154	614
D-6	6	994.07	0.44	0·73	0 73	71	71	2.0	99	250	250	158	618
D-5	8	995.00	0·40	0 66	0 66	71	72	2·0	102	263	257	156	616
D 4	10	995.93	0·35	0 58	0 55	70	71	2·0	93	252	252	152	612
D-3	12	996.87	0·39	0·62	0·62	70	71	2·0	92	251	252	153	613
D-2	14	997.80	0·36	0 60	0·60	71	72	2·0	96	255	251	153	613
D-1	16	998.60	0·26	0·43	0·43	71	72	2 0	95	265	253	151	611

Comments:

3/16/77

C4-2

Run 2

Sheet 3 of 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
E 8	2	999.60	0.41	0 68	0.68	70	71	2.0	95	254	252	152	617
E 7	4	060.53	0.38	0 61	0.61	70	71	2.0	96	252	254	156	616
E 6	6	001.54	0.44	0 73	0.73	70	72	2.0	98	253	254	154	614
E 5	8	002.46	0 35	0 58	0.58	71	72	2.0	96	253	254	155	615
E 4	10	003.52	0.48	0 80	0 80	70	72	2.0	94	242	251	153	613
E 3	12	004.47	0.40	0.63	0 63	71	72	2.0	94	246	249	154	614
E 2	14	005.55	0.52	0.85	0.85	71	73	2.0	94	252	250	157	617
E 1	16	006.49	0.38	0 62	0.62	72	73	2.0	93	243	247	150	610
F 8	2	007.76	0 60	1.00	1.00	72	72	2.0	93	24[illegible]	243	157	617
F 7	4	008.81	0.55	0.90	0.90	72	72	2.0	93	236	242	159	619
F 6	6	009.93	0 52	0 86	0.86	72	73	2.0	93	242	243	164	624
F 5	8	011.09	0.61	1.03	1 00	72	72	2.0	91	236	240	167	627
F 4	10	012.17	0.45	0.74	674	71	73	2 0	93	2 35	239	164	624
F 3	12	013.41	0 72	1.20	1.20	72	73	2.0	91	235	240	161	621
F 2	14	014.65	0.63	1.05	1.05	73	74	2.0	91	240	243	164	624
F 1	16	015.75	0.50	0 81	0.81	71	73	2.0	93	240	241	157	617

Comments:

@ 1130 Leak Check @ 12" Hg 0.004 CFM

1.5687 (70.0416 / 70.7291)

614.3333

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 4/[illegible]/77
Address: [illegible] Operators: [illegible]
Station No.: [illegible] : [illegible]
Run No.: #2 Ambient Temperature: [illegible]
Barometric Pressure: 29.55 Sample Box Number: 1

Impinger 1

Final Volume 96 ml of WATER
Initial Volume 100 ml
Volume collected -4 ml

Impinger 2

Final Volume 98 ml of WATER
Initial Volume 100 ml
Volume collected -2 ml

Impinger 3

Final Volume 0 ml of WATER
Initial Volume 0 ml
Volume collected 0 ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 726.5 gm of SILICAGEL
Initial weight 700.0 gm
Weight collected 65 gm

Total Volume Collected 0.5 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
1	gm	gm	gm
	gm	gm	gm

Cleanup performed by [illegible] on 4/[illegible]/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Bethlehem Steel
LOCATION Sparrows Pt.
TEST NUMBER Spa 0902
DATE 4/14/77
TYPE FACILITY steel mill
CONTROL DEVICE Baghouse

HOURS OF OBSERVATION 1/4
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION U.S.E.P.A.
POINT OF EMISSIONS highest stack
HEIGHT OF DISCHARGE POINT 300 ft

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	400 ft			
Direction from Discharge	SE			
Height of Observation Point	6' above ground			
BACKGROUND DESCRIPTION	Blue			
WEATHER CONDITIONS Wind Direction	SW			
Wind Speed	5 mph			
Ambient Temperature	80°F			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	40% Cloudy			
PLUME DESCRIPTION Color	Gray			
Distance Visible	100 ft			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 2

COMPANY [illegible]
LOCATION [illegible]
TEST NUMBER [illegible]
DATE 6/ /73

OBSERVER [illegible]
TYPE FACILITY [illegible]
POINT OF EMISSIONS [illegible]

1.0416

Obsn No.	Min	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
11 AM	0	0	0	0	10	✓		Plume cleared
	1	5	5	5	0			
	2	0	0	0	0			
	3	0	0	0	0			
	4	0	0	0	0			
	5	0	0	0	0			
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
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	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY
LOCATION
TEST NUMBER
DATE

OBSERVER
TYPE FACILITY
POINT OF EMISSIONS

1.7083

Obsn No.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
12 Cl	34	0	0	0	5	X		
	35	5	10	5	5			
	36	5	0	0	15			Plume cleared
	37	10	5	0	0			
	38	0	0	0	0			
	39	0	0	0	0			
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74,8:45 am]

ULE ELD

Plant Trinity Steel

Run No. #3 0407

Location Texas, PA

Date 4/14/97

Operator

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.8

C Factor .69

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1415

End Time 1559

Ambient Temp °F 85

Bar. Press. "Hg 28.55

Assumed Moisture % 0

Probe Tip Dia. In. .244

Pitot Tube No. S-1

Probe Length/type 6'/Heated

Filter No. 7

@1400 Leak check @ 15" Hg = 0.004 cfm

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
Start @		1625.45											
F 8	2	017.45	0.40	1.07	1.05	102	102	3.5	114	248	276	176	636
F 7	4	018.78	0.49	1.30	1.30	84	84	4.0	114	235	257	174	634
F 6	6	020.16	0.53	1.45	1.45	85	85	4.5	111	232	250	172	632
F 5	8	021.54	0.48	1.30	1.30	85	85	4.5	110	242	248	175	635
F 4	10	022.95	0.55	1.50	1.50	85	86	4.5	110	246	248	174	634
F 3	12	024.28	0.41	1.10	1.10	86	86	4.0	109	248	248	184	644
F 2	14	025.76	0.55	1.50	1.50	85	87	4.5	110	250	247	186	646
F 1	16	026.89	0.36	0.98	0.98	86	87	4.0	110	254	247	183	643
E 8	2	028.00	0.32	0.86	0.86	87	87	3.5	112	257	246	192	652
E 7	4	029.02	0.27	0.73	0.73	86	86	3.2	106	248	242	192	652
E 6	6	030.15	0.39	1.05	1.05	87	88	4.0	112	256	246	189	649
E 5	8	031.45	0.40	1.08	1.08	87	88	4.0	112	255	247	189	649
E 4	10	032.61	0.34	0.92	0.92	87	88	3.8	112	263	245	194	654
E 3	12	033.74	0.40	1.08	1.08	87	86	4.0	114	265	247	193	653
E 2	14	034.91	0.29	0.79	0.79	87	85	3.5	113	261	250	186	646
E-1	16	036.04	0.33	0.90	0.90	82	82	3.5	114	247	252	182	642

Comments: Stack @ 2.0" Hg

4202
Run 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
D 8	2	036.90	0.18	0.49	0.49	88	88	2.5	116	266	251	181	641
D 7	4	037.93	0.28	0.76	0.76	87	87	3.0	114	259	248	181	641
D 6	6	039.04	0.32	0.86	0.86	86	85	3.4	115	263	244	182	646
D 5	8	040.07	0.26	0.70	0.70	88	88	3.0	116	270	257	191	651
D 4	10	041.17	0.32	0.86	0.86	88	87	3.3	115	268	252	190	650
D 3	12	042.14	0.22	0.60	0.60	89	89	3.0	116	267	252	191	651
D 2	14	043.20	0.31	0.84	0.84	88	89	3.3	116	266	253	190	650
D 1	16	044.19	0.24	0.64	0.64	88	89	3.0	116	268	256	186	648
C 8	2	045.05	0.15	0.48	0.48	88	89	2.6	119	268	262	186	646
C 7	4	045.82	0.12	0.35	0.35	90	89	2.4	120	266	264	184	644
C 6	6	046.62	0.15	0.44	0.44	90	90	2.5	120	266	261	182	642
C 5	8	047.60	0.23	0.67	0.67	89	89	3.0	120	268	259	185	645
C 4	10	048.53	0.19	0.56	0.56	89	89	2.9	119	266	257	176	638
C 3	12	049.52	0.24	0.70	0.70	89	89	3.0	118	259	255	178	638
C 2	14	050.50	0.22	0.64	0.64	89	89	3.0	116	258	252	175	635
C 1	16	051.35	0.16	0.47	0.47	88	89	2.7	117	257	249	172	632

Comments:

4202 Sheet 3 of 3

Run 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460
				Desired	Actual	Outlet	Inlet						
B 8	2	052.15 (~~57.400~~)	0.15	0.40	0.40	89	89	2.0	114	243	241	176	6.36
B 7	4	053.09	0.25	0.67	0.67	88	88	2.0	115	245	241	176	6.36
B 6	6	054.03	0.24	0.62	0.62	88	88	3.0	115	245	238	175	6.35
B 5	8	054.87	0.17	0.45	0.45	89	89	3.0	118	254	241	179	6.39
B 4	10	055.68	0.17	0.45	0.45	89	88	3.0	117	250	241	175	6.35
B 3	12	056.34	0.10	0.27	0.27	89	89	3.0	117	251	244	172	6.32
B 2	14	057.20	0.20	0.53	0.53	89	89	3.0	117	250	244	174	6.34
B 1	16	057.84	0.10	0.27	0.27	89	89	3.0	118	251	247	172	6.32
A 8	2	058.70	0.20	0.53	0.53	90	89	3.0	119	249	245	171	6.31
A 7	4	059.70	0.27	0.72	0.72	89	89	3.0	119	249	245	169	6.29
A 6	6	060.59	0.20	0.53	0.53	89	89	3.0	118	251	244	171	6.31
A 5	8	061.49	0.20	0.53	0.53	89	90	3.0	119	244	245	174	6.34
A 4	10	062.25	0.14	0.37	0.37	89	89	3.0	118	252	248	170	6.30
A 3	12	063.00	0.14	0.37	0.37	90	89	3.0	118	255	255	172	6.32
A 2	14	063.73	0.14	0.37	0.37	89	89	2.5	121	255	259	170	6.30
A 1	16	064.47	0.09	0.24	0.24	89	89	2.0	121	255	260	171	6.31

Comments:

@ 1600 Leak check @ 13" Hg = 0.002 cfm

.7785 | 88.1875 | 88.4166

6.31 6.6

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 4/12/77
Address: [illegible] Operators: [illegible]
Station No.: [illegible] :
Run No.: #3 Ambient Temperature: [illegible]
Barometric Pressure: Sample Box Number: 1

Impinger 1

Final Volume 93 ml of water
Initial Volume 100 ml
Volume collected -7 ml

Impinger 2

Final Volume ml of water
Initial Volume 100 ml
Volume collected 101 ml

Impinger 3

Final Volume ml of water
Initial Volume 0 ml
Volume collected ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 735.0 gm of silica gel
Initial weight 725.5 gm
Weight collected 9.5 gm

Total Volume Collected 3.5 ml

Filters

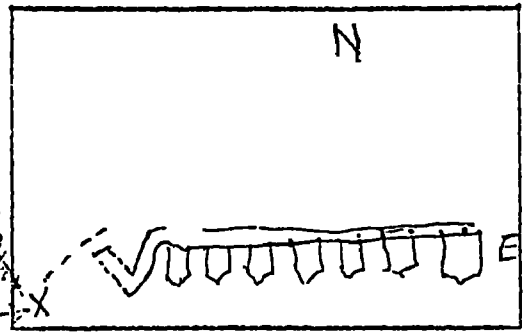
No.	Final Weight	Tare Weight	Weight Collected
7	gm	gm	gm
	gm	gm	gm

Cleanup performed by [signature] on April 14, 1977

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Marathon Steel Co
LOCATION Ohio
TEST NUMBER 3
DATE Nov. 14, 1977
TYPE FACILITY Steel Mill
CONTROL DEVICE Baghouse



HOURS OF OBSERVATION C
OBSERVER J Kluge
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION E. P. A.
POINT OF EMISSIONS Stack
HEIGHT OF DISCHARGE POINT 10'

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	30'			30'
Direction from Discharge	S/W			S/W
Height of Observation Point	G.L.			G.L.
BACKGROUND DESCRIPTION	Sky/Building			Sky/Building
WEATHER CONDITIONS Wind Direction	E. SE			E. SE
Wind Speed	0-5			0-5
Ambient Temperature	85°			85°
SKY CONDITIONS (clear, overcast, % clouds, etc.)	30% CL			30% CL
PLUME DESCRIPTION Color	Brown			Brown
Distance Visible	20'			20'
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible] OBSERVER [illegible]
LOCATION [illegible] TYPE FACILITY [illegible]
TEST NUMBER [illegible] POINT OF EMISSIONS [illegible]
DATE [illegible]

.6250

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	0	[illegible]						
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
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	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY ___ OBSERVER ___
LOCATION ___ TYPE FACILITY ___
TEST NUMBER ___ POINT OF EMISSIONS ___
DATE ___

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
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	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26150 Filed 11-11-74,8:45 am]

1. ULA ELD

Plant Marathon Steel

Run No. #4

Location 0403

Date April 15, 1977

Operator JC/WS

Sample Box No. #4

Meter Box No. 2

Meter Δ H 1.68

C Factor 0.74

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 0507

End Time 0748

Ambient Temp °F 50

Bar. Press. "Hg 29.74

Assumed Moisture % 0

Probe Tip Dia. In. 0.241

Pitot Tube No. S-1

Probe Length/type 5'/Glass

Filter No. 9

0750 Leak check @ 15" Hg 0.007 CFM

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
	Start	061.13											
A-8	2	067.14	0.33	0.82	0.82	74	74	2.5	117	267	255	171	631
-7	4	068.16	0.30	0.75	0.75	75	76	2.5	121	277	264	179	639
-6	6	069.28	0.38	0.96	0.96	77	78	3.0	124	273	266	184	644
-5	8	070.50	0.43	1.06	1.10	77	79	3.0	124	275	267	187	647
-4	10	071.58	0.35	0.88	0.88	76	78	3.0	121	274	263	177	637
-3	12	072.52	0.25	0.61	0.61	76	79	3.0	119	265	260	174	634
-2	14	073.53	0.31	0.78	0.78	77	79	3.0	115	263	251	173	633
-1	16	074.41	0.25	0.61	0.61	77	80	3.0	118	259	261	174	634
B-8	2	075.50	0.35	0.86	0.86	77	82	3.0	117	251	263	175	635
7	4	076.72	0.47	1.17	1.15	80	83	3.0	116	246	264	171	631
6	6	077.97	0.47	1.17	1.15	81	84	3.0	118	249	266	173	633
5	8	079.22	0.44	1.10	1.10	81	85	3.0	118	253	264	175	635
4	10	080.46	0.44	1.10	1.10	82	86	3.0	121	253	259	173	633
3	12	081.52	0.31	0.78	0.78	80	86	3.0	121	253	256	173	633
2	14	082.59	0.34	0.86	0.86	82	86	3.0	120	252	256	175	635
1	16	083.57	0.27	0.68	0.68	83	87	3.0	120	254	253	165	625

Comments:

0402
Run 4

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460
				Desired	Actual	Outlet	Inlet						
P-S	2	084.67	0.33	0.92	0.92	87	86	3.0	117	236	254	175	635
7	4	085.77	0.40	1.00	1.00	83	86	3.0	119	234	256	178	638
6	6	086.55	0.34	0.85	0.85	83	86	3.0	118	231	254	183	643
5	8	088.09	0.43	1.08	1.10	84	88	3.0	122	245	256	190	650
4	10	089.13	0.31	0.78	0.78	84	86	3.0	120	235	253	184	644
3	12	090.34	0.40	1.00	1.00	86	89	3.0	126	251	257	186	646
2	14	091.46	0.40	1.00	1.00	86	90	3.0	126	252	257	182	642
1	16	092.44	0.26	0.65	0.65	87	90	3.0	126	255	262	182	642
P-S	2	093.57	0.37	0.93	0.93	87	90	3.0	127	252	260	181	641
7	4	094.80	0.45	1.12	1.10	87	90	3.0	126	249	263	179	639
6	6	096.13	0.54	1.35	1.35	86	90	3.0	123	242	262	176	636
5	8	097.51	0.54	1.35	1.35	86	90	3.0	124	240	259	174	634
4	10	098.85	0.52	1.30	1.30	88	91	3.0	124	240	260	179	639
3	12	100.14	0.48	1.20	1.20	88	89	3.0	126	246	263	179	639
2	14	101.43	0.46	1.15	1.15	86	93	3.0	126	250	263	181	641
1	16	102.67	0.44	1.10	1.10	85	92	3.0	127	245	261	177	637

Comments:

3/16/77

0402
Run 4

Sheet 3 of 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
E-S	2	103.99	0.53	132	1.30	90	93	3.0	130	256	267	185	645
7	4	105.21	0.40	1.00	1.00	90	92	3.0	129	257	263	190	650
6	6	106.55	0.55	138	1.40	90	92	3.0	130	258	275	186	648
5	8	107.90	0.54	134	1.40	89	92	3.0	130	255	275	181	649
4	10	109.40	0.64	1.60	1.60	90	93	3.0	131	257	277	194	654
3	12	110.84	0.64	1.60	1.60	91	94	3.0	132	257	275	194	654
2	14	112.26	0.56	1.40	1.40	90	93	3.0	131	260	273	195	655
1	16	113.72	0.60	1.50	1.50	91	94	3.0	132	260	273	195	655
F-S	2	115.10	0.53	1.40	1.40	91	94	3.0	133	264	272	201	667
7	4	116.54	0.60	1.50	1.50	92	94	3.0	134	261	272	203	663
6	6	115.00	0.64	1.60	1.60	91	94	3.0	134	260	271	196	656
5	8	119.35	0.50	1.25	1.25	92	95	3.0	136	268	275	194	654
4	10	120.89	0.72	1.80	1.80	93	95	3.0	134	276	273	198	658
3	12	122.44	0.72	1.80	1.80	92	96	3.0	136	270	279	204	664
2	14	124.05	0.75	1.90	1.90	92	95	3.0	133	264	274	200	660
1	16	125.40	0.55	1.35	1.35	93	96	3.0	134	265	264	196	656

Comments:

3/16/77 @ 0950 Leak Check @ 14" Hg = 0.003 CFM

11.139 3185 1875 188 16661

644.083

SAMPLE CLEANUP SHEET

Plant: Marathon Steel — Date: 4/15/77
Address: Tempe, Az — Operators:
Station No.: 0405 — :
Run No.: 4 — Ambient Temperature: 75
Barometric Pressure: 28.74 — Sample Box Number: 1

Impinger 1

Final Volume 100 ml of Distilled H_2O
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 95 ml of Distilled H_2O
Initial Volume 100 ml
Volume collected −5 ml

Impinger 3

Final Volume 0 ml of Empty
Initial Volume 0 ml
Volume collected 0 ml

Impinger

~~Final Volume ____ ml of ____~~
~~Initial Volume ____ ml~~
~~Volume collected ____ ml~~

Impinger

Final weight 740.5 gm of Silica Gel
Initial weight 726.5 gm
Weight collected 14.0 gm

Total Volume Collected 9.0 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
9	gm	gm	gm
	gm	gm	gm

Cleanup performed by [signature] on 4/15/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 of 1

COMPANY [illegible] Mill
LOCATION [illegible], Ala.
TEST NUMBER [illegible]
DATE 4/15/77
TYPE FACILITY Steel mill
CONTROL DEVICE Baghouse

HOURS OF OBSERVATION 1/4
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION U.S.E.P.A.
POINT OF EMISSIONS Stack
HEIGHT OF DISCHARGE POINT 200 ft

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	400 ft			
Direction from Discharge	S			
Height of Observation Point	20 ft			
BACKGROUND DESCRIPTION	Dirt			
WEATHER CONDITIONS Wind Direction	E			
Wind Speed	2-4 mph			
Ambient Temperature	80°F			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	Clear			
PLUME DESCRIPTION Color	Gray			
Distance Visible	400 ft			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible]
LOCATION [illegible]
TEST NUMBER [illegible]
DATE 11/5/74

OBSERVER [illegible]
TYPE FACILITY [illegible]
POINT OF EMISSIONS [illegible]

14583

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
9	0	0	0	0	0			
	1	0	0	0	0			
	2	0	0	15	5			Plume cleared
	3	5	0	0	0			
	4	0	0	0	5			
	5	0	0	0	5			
	6							
	7							
	8							
	9							
	10							
	11							
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	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY
LOCATION
TEST NUMBER
DATE

OBSERVER
TYPE FACILITY
POINT OF EMISSIONS

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
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	58							
	59							

[FR Doc.74-26150 Filed 11-11-74,8:45 am]

:ULA ELD

Plant Interlake Steel

Run No. #5

Location 0402

Date April 15, 1977

Operator J Reed

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 0.74

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1016

End Time 1200

Ambient Temp °F 55

Bar. Press. "Hg 25.74

Assumed Moisture % 0

Probe Tip Dia. In. 0.244

Pitot Tube No. S-1

Probe Length/type 5'/Glass

Filter No. 10

@ 1003 Leak Check @ 14.5" Hg = 0.003 cfm

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
Start		125.86											
F-8	2	127.32	0.60	1.50	1.50	93	93	4.0	125	234	233	195	655
7	4	128.77	0.64	1.60	1.60	94	95	4.0	127	240	242	196	656
6	6	130.22	0.65	1.65	1.65	95	96	4.0	123	236	237	185	648
5	8	131.72	0.65	1.65	1.65	94	96	4.0	121	234	234	185	645
4	10	133.30	0.72	1.80	1.80	95	98	4.0	128	256	254	190	650
3	12	134.80	0.72	1.80	1.80	96	100	5.0	129	262	262	195	655
2	14	136.33	0.67	1.70	1.70	96	100	5.0	128	266	260	194	654
1	16	137.83	0.62	1.55	1.55	96	99	4.5	126	263	264	188	648
E-8	2	138.97	0.37	0.93	0.93	99	101	3.0	141	265	260	205	665
7	4	140.22	0.46	1.15	1.15	100	102	3.0	141	262	270	206	666
6	6	141.50	0.48	1.20	1.20	100	102	3.5	140	275	270	204	664
5	8	142.89	0.60	1.50	1.50	100	102	4.0	141	273	271	213	673
4	10	144.78	0.55	1.35	1.40	101	103	4.0	139	255	272	209	669
3	12	145.70	0.60	1.50	1.50	102	105	4.0	141	251	273	220	680
2	14	147.11	0.60	1.50	1.50	102	104	4.0	140	250	276	217	677
1	16	148.16	0.36	0.76	0.76	99	103	4.0	138	200	265	205	665

Comments:

0402 Sheet 2 of 2

Run 5

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
D-8	2	149.22	0.31	0 78	0.78	100	102	3.0	136	271	259	203	663
7	4	150.33	0 36	0 90	0.90	100	102	3.0	137	276	271	203	663
6	6	151.53	0 42	1.06	1 05	100	102	3.0	138	276	275	208	668
5	8	152.70	0 42	1 06	1.05	100	102	3.0	135	266	266	205	665
4	10	154.02	0 50	1.25	1.25	107	105	4.0	139	273	273	211	671
3	12	155.29	0.46	1.15	1.15	102	103	4.0	136	272	273	207	667
2	14	156.46	0 36	0 90	0.90	99	102	3 0	130	248	246	194	654
1	16	157.69	0 40	1.00	1.00	100	102	3.0	127	243	245	193	653
C-8	2	158.42	0.15	0.38	0.35	100	100	2.0	127	233	234	188	648
7	4	159.52	0 38	0. 97	0 97	0.99	100	3 0	127	241	241	189	649
6	6	160.63	0.35	0.88	088	99	100	3 0	125	238	236	184	644
5	8	161.92	0.51	1.30	1 30	100	101	3.0	129	251	248	193	653
4	10	163.09	0.38	0 96	0 96	101	101	3.0	129	249	247	192	652
3	12	164.23	0 35	0.58	0 58	99	101	3 0	125	235	233	184	644
2	14	165.39	0 40	1.00	1.00	102	102	3.0	130	256	256	190	650
1	16	166.51	0.36	0 90	0.90	100	101	3 0	129	253	255	186	646

Comments:

3/16/77

Null Check @ 1204 OK

.62

Sheet 2 of 2

Run 5

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
B-8	2	167.54	0.30	0.75	0.75	102	103	3 0	134	259	256	190	650
7	4	168.79	0.47	1.18	1.20	102	103	3.5	133	257	257	193	653
6	6	170.08	0 47	1.18	1.20	1.01	104	4.0	132	256	255	192	652
5	8	171.32	0.45	1.12	1.10	103	104	3.5	136	263	263	192	652
4	10	172.44	0.35	0.88	0.88	103	104	3.0	132	253	252	188	648
3	12	173.59	0.38	0.95	0.95	102	103	3.0	134	263	262	191	651
2	14	174.56	0.27	0.63	0 63	103	104	3.0	136	270	270	195	655
1	16	175.53	0.27	0 63	0 63	103	104	3.5	136	264	263	193	653
A-8	2	176.46	0.24	0.60	0.60	104	105	2.5	135	269	268	197	657
7	4	177.59	0.40	1.00	1.00	104	105	3.0	138	265	265	197	657
6	6	178.77	0 40	1 00	1.00	104	106	3 0	140	265	262	195	655
5	8	179.85	0.30	0 76	0 76	103	105	3.0	140	277	271	262	662
4	10	180.90	0.31	0 78	0 78	104	104	3.0	140	275	274	199	659
3	12	181.96	0.30	0.76	0 76	104	105	3.0	137	259	263	195	653
2	14	182.88	0.22	0 56	0 56	102	103	3 0	134	255	254	199	659
1	16	183.65	0.15	0.37	0 57	103	104	3 0	135	274	274	197	657

Comments:

@ 1201 Leak Check @ 15" Hg 0.004 cfm

1.0762 | 100.25 | 101.8958

3/16/77

SAMPLE CLEANUP SHEET

Plant: Martha Soil Co. Date: 11/15/77
Address: Tope, Ala Operators: [illegible]
Station No.: Out 2 :
Run No.: #5 Ambient Temperature:
Barometric Pressure: 28.74 Sample Box Number: 1

Impinger 1

Final Volume 92 ml of Distilled H2O
Initial Volume 100 ml
Volume collected -8 ml

Impinger 2

Final Volume 99 ml of Distilled H2O
Initial Volume 100 ml
Volume collected -1 ml

Impinger 3

Final Volume ml of
Initial Volume Empty 0 ml
Volume collected 1 ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 755.0 gm of Silica Gel
Initial weight 741.0 gm
Weight collected 14 gm

Total Volume Collected 22 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
10	gm	gm	gm
	gm	gm	gm

Cleanup performed by [signature] on Nov 15, 1977

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE___OF___

COMPANY_____
LOCATION_____
TEST NUMBER_____
DATE_____
TYPE FACILITY_____
CONTROL DEVICE_____

HOURS OF OBSERVATION_____
OBSERVER_____
OBSERVER CERTIFICATION DATE_____
OBSERVER AFFILIATION_____
POINT OF EMISSIONS_____
HEIGHT OF DISCHARGE POINT_____

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge				
Direction from Discharge				
Height of Observation Point				
BACKGROUND DESCRIPTION				
WEATHER CONDITIONS Wind Direction				
Wind Speed				
Ambient Temperature				
SKY CONDITIONS (clear, overcast, % clouds, etc.)				
PLUME DESCRIPTION Color				
Distance Visible				
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible] OBSERVER [illegible]
LOCATION [illegible] TYPE FACILITY [illegible]
TEST NUMBER [illegible] POINT OF EMISSIONS [illegible]
DATE [illegible]

.6250

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	0	0	0	0	0			
	1	0	0	0	0			
	2	0	0	0	0			
	3	0	0	0	0			
	4	15	0	0	0			Data discontinued
	5	0	0	0	0			
	6							
	7							
	8							
	9							
	10							
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	12							
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	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY ___ OBSERVER ___
LOCATION ___ TYPE FACILITY ___
TEST NUMBER ___ POINT OF EMISSIONS ___
DATE ___

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
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	58							
	59							

[FR Doc.74-26150 Filed 11-11-74;8:45 am]

P ULA :LD

Plant [illegible]

Run No. #1 [illegible]

Location 0403

Date April 13, 1977

Operator L.W.S

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.22

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time _____

End Time _____

Preliminary TRAVERSE

Ambient Temp °F 90

Bar. Press. "Hg 28.86

Assumed Moisture % 4

Probe Tip Dia. In. .315

Pitot Tube No. S-1

Probe Length/type [illegible]

Filter No. 2

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
A-6	0	729.2	0.75	1.35	1.35	80	79	3.0	78	140	275	107	
	3	731	0.75	0.99	0.99	80	79	2.0	73	140	274	107	
	6	732.25	0.65	0.79	0.79	79	78	2.5	72		269	107	
	9	—	—	—	—	—	—	—	—	—	—	—	
	12	735.75	0.63	0.95	0.95	79	80	2.0	69	145	275	106	
	15	—	—	—	—	—	—	—	—	—	—	—	
	18	739.75	0.62	0.94	0.94	82	80	2.1	70		287	107	
	21	740.71	0.62	0.94	0.74	79	79	2.1	73		285	107	
	24	742.70	0.61	0.73	0.73	79	79	2.0	73		273	104	
	27	744.45	0.62	0.94	0.74	77	79	2.1	73		269	105	
	30	746.05											

N

[illegible] E

Point 1 closest to Point

Null Reading on Static Tube

Comments:

SAMPLE CLEANUP SHEET

Plant: Mohave Unit 1 Date: 4/12/77
Address: Temple Nevada Operators: _____
Station No.: Unit 3 Stack : _____
Run No.: Test Ambient Ambient Temperature: 80
Barometric Pressure: 24.74 Sample Box Number: 1

Impinger 1

Final Volume 100 ml of H_2O
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 91.5 ml of H_2O
Initial Volume 100 ml
Volume collected -8.5 ml

Impinger 3

Final Volume _____ ml of Blank
Initial Volume _____ ml
Volume collected _____ ml

Impinger

Final Volume _____ ml of _____
Initial Volume _____ ml
Volume collected _____ ml

Impinger 4

Final weight 721.0 gm of Silica Gel
Initial weight 716.5 gm
Weight collected 4.5 gm

Total Volume Collected _____ ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
2	_____ gm	_____ gm	_____ gm
_____	_____ gm	_____ gm	_____ gm

Cleanup performed by _____ on _____

:ULA ELD

Plant Granite Steel

Run No. #1

Location 040 5

Date 12/13/2017

Operator JRW

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.17

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 0819

End Time 1612

Ambient Temp °F 125

Bar. Press. "Hg 28.70

Assumed Moisture % 2.5

Probe Tip Dia. In. .215

Pitot Tube No. S-1

Probe Length/type .76

Filter No. #3

N

000000 E
FEDCBA

Point ONE closest to port

Leak Check @ 0806 @ 16" Hg

Point	Clock Start	Dry Gas Meter, CF 74661	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
A-8	2	747.90	0.93	1.45	1.45	60	61	3.0	68	236	248	112	572
A-7	4	749.15	0.88	1.24	1.25	60	61	3.0	66	233	254	115	575
A 6	6	750.44	0.80	1.24	1.25	60	62	3.0	65	230	260	115	575
A-5	8	751.71	0.80	1.24	1.25	62	64	3.0	64	237	263	118	578
A-4	10	752.95	0.68	1.07	1.10	61	64	3.0	64	244	264	111	571
A-3	12	754.12	0.65	1.05	1.05	62	65	3.0	64	248	267	118	578
A-2	14	755.20	0.55	0.86	0.86	62	65	3.0	65	254	271	119	579
A-1	16	755.97	0.25	0.39	0.39	62	65	2.0	64	258	272	117	577
B-8	2	757.27	0.85	1.35	1.35	63	65	3.0	67	265	275	120	580
B-7	4	758.67	0.90	1.40	1.40	65	68	3.0	69	267	275	125	585
B-6	6	759.97	0.80	1.24	1.24	64	65	3.0	71	265	272	132	592
B-5	8	761.19	0.70	1.10	1.10	66	69	3.0	76	265	276	131	591
B 4	10	762.47	0.75	1.15	1.20	65	69	3.0	69	271	267	124	584
B-3	12	763.65	0.63	1.00	1.00	65	69	3.0	69	274	265	123	583
B-2	14	764.80	0.63	1.00	1.00	65	69	3.0	68	274	266	121	581
B-1	16	766.02	0.63	1.00	1.00	65	69	3.0	66	275	267	114	574

Comments:

0403 Run 1

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
C-8	2	761.27	0.80	1.25	1.25	66	69	3.0	70	274	266	126	586
C-7	4	768.55	0.76	1.20	1.20	66	69	3.0	68	274	265	137	597
C-6	6	769.85	0.76	1.20	1.20	66	70	3.0	69	275	267	138	598
C-5	8	771.09	0.70	1.10	1.10	67	70	3.0	69	274	268	144	604
C-4	10	772.54	0.73	1.15	1.15	67	71	3.0	70	272	270	131	597
C-3	12	773.57	0.70	1.10	1.10	68	73	3.0	71	272	270	141	601
C-2	14	774.77	0.70	1.10	1.10	68	72	3.0	70	270	271	137	597
C-1	16	775.90	0.60	0.94	0.94	67	72	3.0	69	266	272	129	589
B-8	2	777.10	0.63	1.00	1.00	68	72	3.0	71	262	273	131	591
B-7	4	778.36	0.78	1.23	1.25	69	72	3.0	70	259	274	127	587
B-6	6	779.58	0.70	1.10	1.10	68	72	3.0	70	256	274	125	585
B-5	8	780.85	0.78	1.23	1.25	69	73	3.0	70	256	273	124	584
B-4	10	782.14	0.80	1.25	1.25	69	73	3.0	70	256	272	125	585
B-3	12	783.43	0.78	1.23	1.25	70	76	3.0	70	255	270	129	589
B-2	14	784.76	0.85	1.35	1.35	70	75	3.0	70	253	268	125	585
B-1	16	786.17	0.78	1.23	1.25	69	75	3.0	70	252	267	122	582

Comments:

3/16/77

0403 Run #4

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
E-8	2	787.24	0.64	1.00	1.00	70	74	2.0	70	256	266	127	587
E-7	4	788.55	0.82	1.30	1.30	71	74	2.0	71	253	267	127	587
E-6	6	789.83	0.75	1.18	1.20	71	75	2.0	70	251	265	124	584
E-5	8	791.12	0.75	1.18	1.20	71	76	2.0	69	251	263	139	599
E-4	10	792.50	0.70	1.10	1.10	71	76	2.0	69	247	261	128	588
E-3	12	793.57	0.70	1.10	1.10	72	76	2.0	69	246	259	128	588
E-2	14	794.70	0.60	0.94	0.94	72	76	2.0	68	247	259	127	587
E-1	16	796.00	0.53	1.30	1.30	72	76	2.0	68	243	257	124	584
F-8	2	797.28	0.80	1.25	1.25	73	77	2.0	70	250	252	136	596
F-7	4	798.59	0.87	1.35	1.35	75	79	2.0	72	247	249	132	592
F-6	6	800.00	0.87	1.35	1.35	75	80	2.0	72	246	249	133	593
F-5	8	801.24	0.70	1.10	1.10	75	80	2.0	73	246	248	134	594
F-4	10	802.50	0.80	1.25	1.25	75	79	2.0	69	246	249	137	597
F-3	12	803.81	0.85	1.32	1.30	76	81	2.0	71	244	249	130	590
F-2	14	805.18	0.85	1.32	1.30	74	79	2.0	68	244	251	121	581
F-1	16	806.45	0.77	1.20	1.20	74	79	2.0	69	244	252	116	576
						68.1323	71.75						576.6575

Comments:

3/16/77

1.1639

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 6/13/77
Address: [illegible] Operators: [illegible]
Station No.: 0103 :
Run No.: #1 Ambient Temperature: 75
Barometric Pressure: 28.70 Sample Box Number: 1

Impinger 1

Final Volume 90 ml of water
Initial Volume 100 ml
Volume collected -10 ml

Impinger 2

Final Volume 100 ml of water
Initial Volume 100 ml
Volume collected 0 ml

Impinger 3

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final Volume 6 ml of water
Initial Volume 0 ml
Volume collected 6 ml

Impinger

Final weight 736.0 gm of silica gel
Initial weight 721.0 gm
Weight collected 15.0 gm

Total Volume Collected 11.0 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
3	gm	gm	gm
	gm	gm	gm

Cleanup performed by [illegible] on 6/13/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Jones Steel
LOCATION Tampa, Florida
TEST NUMBER #1 OPC-5
DATE April 13, 1977
TYPE FACILITY Steel Furnace
CONTROL DEVICE Baghouse

HOURS OF OBSERVATION 1/4
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION U.S.F.P.A.
POINT OF EMISSIONS #3 Baghouse Vent
HEIGHT OF DISCHARGE POINT 150 ft

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	40 ft			
Direction from Discharge	E			
Height of Observation Point	ground			
BACKGROUND DESCRIPTION	dirt			
WEATHER CONDITIONS Wind Direction	S			
Wind Speed	2-4 mph			
Ambient Temperature	75°F			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	Clear			
PLUME DESCRIPTION Color	Gray			
Distance Visible	100 ft			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible]
LOCATION [illegible]
TEST NUMBER [illegible]
DATE 11/1/73

OBSERVER [illegible]
TYPE FACILITY [illegible]
POINT OF EMISSIONS [illegible]

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	0	0	0	0	5			
	1	0	0	0	5			
	2	0	0	0	0	[illegible]		
	3	0	0	0	0			
	4	0	5	0	10			
	5	10	0	0	0			
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
[illegible]	14	0	0	5	0			
	15	0	0	5	0			
	16	0	0	0	10	[illegible]		
	17	0	0	0	0	[illegible]		
	18	0	0	0	0			
	19	0	0	0	0			
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY
LOCATION
TEST NUMBER
DATE

OBSERVER
TYPE FACILITY
POINT OF EMISSIONS

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

[FR Doc.74-26160 Filed 11-11-74,8:45 am]

P/ LA LD I

Plant Marathon Steel Co

Run No. H 2

Location 0403

Date 4-13-76

Operator Walz

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.17

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1050

End Time 1235

Ambient Temp °F 80

Bar. Press. "Hg 23.70

Assumed Moisture % 0

Probe Tip Dia. In. 0.215

Pitot Tube No. S-1

Probe Length/type 8'/Glass

Filter No. 4

@1033 Leak Check @ 15" Hg OK

Point	Clock	Dry Gas Meter, CF 806.84	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
Sht nt				Desired	Actual	Outlet	Inlet						
F-8	2	808.01	1.85	1.30	1.30	78	79	3	75	230	259	146	606
F-7	4	809.32	0.80	1.25	1.25	78	80	3	75	249	260	152	612
F-6	6	810.65	0.85	1.30	1.30	81	78	3	73	263	260	154	619
F-5	8	811.88	0.70	1.10	1.10	79	81	3	72	258	261	160	622
F-4	10	813.15	0.75	1.15	1.15	79	82	3	73	257	269	158	618
F-3	12	814.39	0.75	1.15	1.15	79	82	3	73	258	269	153	613
F-2	14	815.49	0.55	0.55	0.55	79	82	3	73	260	265	153	613
F-1	16	816.66	0.61	1.00	1.00	79	82	3	74	260	270	151	611
E-8	2	817.84	0.64	1.00	1.00	80	82	3	74	267	266	152	612
E-7	4	819.15	0.80	1.25	1.25	79	82	3	74	267	269	150	610
E-6	6	820.30	0.60	0.93	0.93	80	83	3	75	269	270	155	615
E-5	8	821.47	0.60	0.93	0.93	80	83	3	75	273	271	157	617
E-4	10	822.64	0.64	1.00	1.00	80	83	3	76	274	269	154	614
E-3	12	823.83	0.64	1.00	1.00	80	84	3	77	269	267	155	615
E-2	14	825.07	0.75	1.15	1.15	80	84	3	77	276	266	148	608
E-1	16	826.28	0.64	1.00	1.00	80	84	3	76	267	261	154	614

Comments:

Run 2

Sheet 2 of 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
D-8	2	827.62	0.70	1.10	1.10	81	85	3	77	269	249	175	635
D-7	4	828.82	0.70	1.10	1.10	81	85	3	78	268	248	170	630
D-6	6	830.00	0 64	1.00	1.00	81	85	3	78	267	247	166	626
D-5	8	831.21	0.64	1 00	1.00	81	85	3	78	276	248	163	623
D-4	10	832.40	0 64	1.00	1.00	82	86	3	80	262	247	167	627
D-3	12	833.59	0 68	1.05	1.05	82	87	3	79	277	247	169	624
D-2	14	834.70	0.55	0.85	0.85	82	86	3	78	275	249	164	624
D-1	16	835.89	0.64	1.00	1.00	82	86	3	78	274	248	160	620
C-8	2	837.09	0.64	1.00	1.00	83	86	3	79	268	248	155	615
C 7	4	838.30	0.70	1 10	1.10	84	87	3	78	277	252	148	608
C-6	6	839.55	0.70	1.10	1.10	83	87	3	77	278	254	168	628
C 5	8	840.82	0 75	1 15	1.15	84	87	3	76	282	259	176	636
C-4	10	842.06	0 75	1.15	1.15	83	87	3	76	280	261	161	621
C-3	12	843.27	0.64	1.00	1.00	83	87	3	77	274	264	166	626
C-2	14	844.52	0.70	1.10	1.10	83	88	3	76	273	266	165	625
C-1	16	845.77	0.70	1.10	1.10	84	88	3	77	270	267	141	609

Comments:

3/16/77

0403
Run 2

Sheet 3 of 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460)
				Desired	Actual	Outlet	Inlet						
B-8	2	847.05	0.78	1.22	1.20	85	85	3.0	78	267	266	146	606
B-7	4	848.33	0.74	1.15	1.15	85	88	3.0	78	265	267	143	603
B-6	6	849.64	0.78	1.22	1.20	85	88	3.0	79	264	267	143	603
B-5	8	850.94	0.75	1.20	1.20	85	88	3.0	78	264	267	142	602
B-4	10	852.22	0.70	1.10	1.10	85	88	3.0	78	260	267	147	607
B-3	12	853.39	0.60	0.94	0.94	86	88	3.0	79	260	265	153	613
B-2	14	854.54	0.60	0.94	0.94	86	89	3.0	79	260	264	152	612
B-1	16	855.67	0.52	0.80	0.80	86	89	3.0	80	259	263	154	614
A-8	2	856.85	0.74	1.15	1.15	86	88	3.0	80	257	262	159	619
A-7	4	858.12	0.74	1.15	1.15	86	88	3.0	80	258	264	159	619
A-6	6	859.38	0.74	1.15	1.15	88	91	3.0	86	252	266	164	624
A-5	8	860.57	0.60	0.94	0.94	88	91	3.0	87	243	265	160	620
A-4	10	861.73	0.60	0.94	0.94	88	91	3.0	87	233	266	160	620
A-3	12	862.82	0.52	0.80	0.80	89	91	3.0	87	225	265	161	621
A-2	14	863.99	0.52	0.80	0.80	87	89	3.0	80	224	266	164	624
A-1	16	865.08	0.52	0.80	0.80	89	91	3.0	87	224	266	130	590

Comments:

(1237) Leak check @ 15" Hg 4M
1.0504 | 82.7916 | 80.6710

6166.66

3/16/77

SAMPLE CLEANUP SHEET

Plant: Bunker Steel Date: 4/13/77
Address: Terre Haute Operators:
Station No.: 6403 :
Run No.: #3 Ambient Temperature: 75°
Barometric Pressure: 28.70 Sample Box Number: 1

Impinger 1

Final Volume 90 ml of water
Initial Volume 100 ml
Volume collected -10 ml

Impinger 2

Final Volume 103 ml of water
Initial Volume 100 ml
Volume collected 3 ml

Impinger 3

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final Volume 0 ml of empty
Initial Volume 0 ml
Volume collected 0 ml

Impinger

Final weight 6720 gm of silica gel
Initial weight 6700 gm
Weight collected 20 gm

Total Volume Collected 15 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
4	gm	gm	gm
	gm	gm	gm

Cleanup performed by [illegible] on 4/13/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY [illegible]
LOCATION Tempe, Ok.
TEST NUMBER [illegible] 04/03
DATE 4/13/77
TYPE FACILITY [illegible]
CONTROL DEVICE [illegible]

HOURS OF OBSERVATION 1/2
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION [illegible]
POINT OF EMISSIONS [illegible]
HEIGHT OF DISCHARGE POINT 30 FT

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	40 ft			
Direction from Discharge	SE			
Height of Observation Point	Ground			
BACKGROUND DESCRIPTION	Sky			
WEATHER CONDITIONS Wind Direction	S			
Wind Speed	2-5 mph			
Ambient Temperature	85°			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	Clear			
PLUME DESCRIPTION Color	Gray			
Distance Visible	100 ft			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

ULI ELD

Plant Marathon Steel

Run No. #3 0403

Location Tempe, Az

Date 4/13/77

Operator LRWJ

Sample Box No. 1

Meter Box No. 2

Meter Δ H 1.68

C Factor 1.19

VERY IMPORTANT - FILL IN ALL BLANKS

Read and record at the start of each test point.

Time: Start Time 1510

End Time 1654

Ambient Temp °F 90

Bar. Press. "Hg 28.60

Assumed Moisture % 0

Probe Tip Dia. In. 0.315

Pitot Tube No. 7-1

Probe Length/type 8' Glass

Filter No. 5, ____, ____

Leak Check at 12.5" Hg OK (0.005 cfm)

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O Desired	Orifice ΔH in H_2O Actual	Dry Gas Temp. °F Outlet	Dry Gas Temp. °F Inlet	Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °R (°F+460)
	St.	867.84											
A 8	2	869.15	0.50	1.25	1.25	94	93	3.0	105	242	273	158	618
A 7	4	870.40	0.70	1.10	1.10	94	94	3.0	104	244	279	162	622
A 6	6	871.70	0.77	1.20	1.20	94	94	3.0	102	242	276	161	621
A-5	8	872.92	0.64	1.00	1.00	94	95	3.0	100	236	261	160	620
A-4	10	873.96	0.47	0.72	0.72	94	95	3.0	98	242	261	171	631
A-3	12	875.09	0.55	0.85	0.85	94	95	3.0	98	247	257	165	625
A-2	14	876.10	0.47	0.72	0.72	94	94	3.0	97	256	255	166	626
A-1	16	877.02	0.35	0.54	0.54	94	95	3.0	96	261	256	161	621
B 8	2	878.33	0.74	1.15	1.15	91	92	3.0	88	255	259	156	616
B-7	4	879.68	0.84	1.30	1.30	91	91	3.0	87	269	250	146	606
B-6	6	881.04	0.80	1.25	1.25	90	92	3.0	86	273	264	145	605
B-5	8	882.33	0.70	1.10	1.10	90	91	3.0	87	273	265	147	607
B 4	10	883.51	0.60	0.93	0.93	90	91	3.0	87	271	272	147	607
B-3	12	884.59	0.50	0.79	0.79	90	91	3.0	89	276	273	152	612
B-2	14	885.68	0.54	0.82	0.82	90	91	3.0	90	270	264	158	618
B-1	16	886.77	0.50	0.79	0.79	93	91	3.0	90	275	263	148	608

Comments:

0405

Run 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °F (°F+460
				Desired	Actual	Outlet	Inlet						
C-8	2	889.00	0.67	1.05	1.05	91	91	3.0	94	275	257	136	596
C-7	4	889.27	0.70	1.10	1.10	91	92	3.0	94	274	256	137	597
C-6	6	890.44	0.58	0.91	0.91	91	92	3.0	92	263	250	149	609
C-5	8	891.68	0.67	1.05	1.05	91	92	3.0	91	265	242	137	597
C-4	10	892.98	0.67	1.05	1.05	91	92	3.0	91	251	256	134	594
C-3	12	894.10	0.60	0.94	0.94	90	92	3.0	91	240	228	142	602
C-2	14	895.34	0.69	1.08	1.10	92	93	3.0	90	243	227	140	600
C-1	16	896.40	0.50	0.78	0.78	90	92	3.0	96	252	250	149	609
D-8	2	897.62	0.64	1.00	1.00	91	92	3.0	92	255	228	157	617
D-7	4	898.53	0.70	1.10	1.10	91	92	3.0	90	246	232	155	615
D-6	6	900.09	0.67	1.05	1.05	91	93	3.0	90	257	238	147	607
D-5	8	901.35	0.74	1.15	1.15	92	93	3.0	89	236	235	145	605
D-4	10	902.59	0.64	1.00	1.00	91	93	3.0	90	235	238	152	612
D-3	12	903.84	0.74	1.15	1.15	92	93	3.0	89	239	239	145	605
D-2	14	905.05	0.74	1.15	1.15	91	92	3.0	88	253	241	144	604
D-1	16	906.34	0.70	1.10	1.10	90	92	3.0	88	260	247	135	595

Comments:

3/16/77

Sheet 5 of 5

C.405
Run 3

Point	Clock	Dry Gas Meter, CF	Pitot in. H_2O ΔP	Orifice ΔH in H_2O		Dry Gas Temp. °F		Pump Vacuum In. Hg	Impinger Temp. °F	Oven Temp. °F	Probe Temp. °F	Stack Temp. °F	Stack Temp. °R (°F+460)
				Desired	Actual	Outlet	Inlet						
E-8	2	907.58	0.70	1.10	1.10	90	92	3.0	87	260	248	143	603
E-7	4	908.83	0.70	1.10	1.10	90	92	3.0	87	263	250	143	603
E-6	6	910.00	0.60	0.94	0.94	91	92	3.0	88	240	250	143	603
E-5	8	911.12	0.54	0.84	0.84	91	92	3.0	87	237	246	142	602
E-4	10	912.38	0.70	1.10	1.10	91	92	3.0	88	244	249	150	610
E-3	12	913.63	0.72	1.12	1.10	91	92	3.0	87	254	242	145	605
E-2	14	914.96	0.70	1.10	1.10	91	92	3.0	87	253	242	144	604
E-1	16	916.14	0.69	1.08	1.10	91	92	3.0	87	258	246	138	598
F-8	2	917.54	0.80	1.25	1.25	91	92	3.0	86	260	256	144	604
F-7	4	918.89	0.83	1.32	1.30	91	92	3.0	85	259	262	146	606
F-6	6	920.22	0.78	1.22	1.20	90	92	3.0	85	259	254	144	604
F-5	8	921.54	0.83	1.32	1.30	90	92	3.0	84	246	253	149	609
F-4	10	922.94	0.76	1.20	1.20	90	92	3.0	83	246	248	149	609
F-3	12	924.15	0.75	1.19	1.20	91	92	3.0	83	256	247	149	609
F-2	14	925.43	0.76	1.20	1.20	90	91	3.0	81	255	245	151	611
F-1	16	926.65	0.64	1.00	1.00	91	92	3.0	82	252	226	164	624

Comments:

@ 1654 Leak check @ 11" H_g 0.002 cfm

91.3125

11.0462 92.3333

669.37

3/16/77

SAMPLE CLEANUP SHEET

Plant: [illegible] Date: 4/13/77
Address: [illegible] Operators: [illegible]
Station No.: 0402 :
Run No.: #3 Ambient Temperature: 90°F
Barometric Pressure: 29.72 Sample Box Number: 1

Impinger 1

Final Volume 100 ml of WATER
Initial Volume 100 ml
Volume collected 0 ml

Impinger 2

Final Volume 90 ml of WATER
Initial Volume 100 ml
Volume collected -10 ml

Impinger 3

Final Volume 0 ml of WATER
Initial Volume 0 ml
Volume collected 0 ml

Impinger

Final Volume ml of
Initial Volume ml
Volume collected ml

Impinger

Final weight 677.0 gm of SILICA GEL
Initial weight 662.0 gm
Weight collected 15.0 gm

Total Volume Collected 50 ml

Filters

No.	Final Weight	Tare Weight	Weight Collected
5	gm	gm	gm
	gm	gm	gm

Cleanup performed by [illegible] on 4/13/77

RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE 1 OF 1

COMPANY Inland Steel
LOCATION Indiana, Ga.
TEST NUMBER #3 0403
DATE 4/15/77
TYPE FACILITY steel mill
CONTROL DEVICE Baghouse

HOURS OF OBSERVATION 1/4
OBSERVER [illegible]
OBSERVER CERTIFICATION DATE
OBSERVER AFFILIATION U.S.E.P.A.
POINT OF EMISSIONS Bag House Stack
HEIGHT OF DISCHARGE POINT 200 ft

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge	400 ft			
Direction from Discharge	SE			
Height of Observation Point	200 ft			
BACKGROUND DESCRIPTION	Sky			
WEATHER CONDITIONS Wind Direction	SW			
Wind Speed	2-4 mph			
Ambient Temperature	72-75°			
SKY CONDITIONS (clear, overcast, % clouds, etc.)	10%			
PLUME DESCRIPTION Color	Gray			
Distance Visible	100 ft			
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

OBSERVATION RECORD PAGE 1 OF 1

COMPANY [illegible]
LOCATION [illegible]
TEST NUMBER [illegible]
DATE [illegible]

OBSERVER [illegible]
TYPE FACILITY [illegible]
POINT OF EMISSIONS [illegible]

13.75

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	0	15	10	10	10	X		
	1	10	15	30	25	↓		Blue cleaner
	2	15	10	10	5	↓		
	3	10	10	10	5			
	4	10	20	15	15			
	5	20	15	15	20			
	6							
	7							
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OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY
LOCATION
TEST NUMBER
DATE

OBSERVER
TYPE FACILITY
POINT OF EMISSIONS

22.29 16

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
[illegible]	30	20	15	25	25	X		
	31	25	25	20	15	↓		
	32	20	25	20	30	↓		
	33	25	25	15	10			
	34	20	15	15	10			
	35	20	10	20	15			
	36							
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[FR Doc.74-26150 Filed 11-11-74;8:45 am]