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Bureau of Air ... & Mobile Sources

ANIMAL CREMATORY
AIR GENERAL PERMIT REGISTRATION FORM

Part II. Notification to Permitting Office

(Detach and submit to appropriate permitting office; keep copy onsite)

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. *($100 as of the effective date of this form)*

0610042-003

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- ☐ Construct and operate a proposed new facility.
- ☐ Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- ☑ Continue operating the facility after expiration of the current term of air general permit use.
- ☐ Continue operating the facility after a change of ownership.
- ☐ Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- ☑ All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): 0610042-002-AG EXPIRED 3-18-07
- ☐ No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

JOHN GIDEON-OWNER SHADY OAK PET CREMATORY

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

NA

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 5 5TH AV

City: VERO BEACH County: INDIAN RIVER Zip Code: 32962

Facility Start-Up Date (Estimated start-up date of proposed **new** facility.) (N/A for existing facilities)

4-1-09

Owner/Authorized Representative

Name and Position Title: (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)
Print Name and Title:

Owner/Authorized Representative Mailing Address
Organization/Firm:
Street Address:
City: County: Zip Code:

Owner/Authorized Representative Telephone Numbers
Telephone: Fax:
Cell phone (optional):

Facility Contact (If different from Owner/Authorized Representative)

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)
Print Name and Title: JOHN GIDEON - OWNER

Facility Contact Mailing Address
Organization/Firm: SHADY OAK PET CREMATORY
Street Address:
City: VERO BEACH County: INDIAN RIVER Zip Code: 32962

Facility Contact Telephone Numbers
Telephone: 772-664-0107 Fax: 772-664-0107
Cell phone (optional): 772-559-3665

Owner/Authorized Representative Statement

This statement must be signed and dated by the person named above as owner or authorized representative

I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.

I will promptly notify the Department of any changes to the information contained in this registration form.

John Gideon 3-3-09
Signature / JOHN GIDEON Date

Owner/Authorized Representative

Name and Position Title: (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)
Print Name and Title:

Owner/Authorized Representative Mailing Address
Organization/Firm:
Street Address:
City: County: Zip Code:

Owner/Authorized Representative Telephone Numbers
Telephone: Fax:
Cell phone (optional):

Facility Contact (If different from Owner/Authorized Representative)

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)
Print Name and Title:
JOHN GIDEON - OWNER

Facility Contact Mailing Address
Organization/Firm: SHADY OAK PET CREMATORY
Street Address:
City: VERO BEACH County: INDIAN RIVER Zip Code: 32962

Facility Contact Telephone Numbers
Telephone: 772-664-0107 Fax: 772-664-0157
Cell phone (optional): 772-559-3665

Owner/Authorized Representative Statement

This statement must be signed and dated by the person named above as owner or authorized representative

I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.

I will promptly notify the Department of any changes to the information contained in this registration form.

John Gideon 3-3-09
Signature / JOHN GIDEON Date

Design Calculations

If this is an initial registration for a proposed new animal crematory unit, provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees F.

☑ Manufacturer's' design calculations attached. ORIGINAL PERMIT APPLICATION ATTACHED

☑ Registration is not for proposed new animal crematory unit(s).

Description of Facility

Below, or as an attachment to this form, provide a description of all crematory operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

PETS CREMATED ON AN INDIVIDUAL BASIS NO COMUNAL OR MASS CREMATION. NO FUTURE EXSPANTION IS PLANNED.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility, Location, and Type

1. Facility UTM Coordinates :
   Zone : 17 East (km) : 560.79 North (km) : 3052.88

2. Facility Latitude/Longitude :
   Latitude (DD/MM/SS) : 27 36 Longitude (DD/MM/SS) : 80 23 2

3. Governmental Facility Code :	4. Facility Status Code :	5. Facility Major Group SIC Code :	6. Facility SIC(s) :
0	A	89	

7. Facility Comment :

   THIS FACILITY CREMATES DEAD ANIMALS.

Facility Contact

1. Name and Title of Facility Contact :
   JOHN GIDEON
   OWNER

2. Facility Contact Mailing Address :
   Organization/Firm : SHADY OAK PET CREMATORY
   Street Address : 4010 BALDWIN DRIVE
   City : SEBASTIAN State : FL Zip Code : 32976-0000

3. Facility Contact Telephone Numbers :
   Telephone : (561)664-0107 Fax : (561)231-4959

Facility Regulatory Classifications

1. Small Business Stationary Source?	Y
2. Title V Source?	N
3. Synthetic Non-Title V Source by Virtue of Previous Air Construction Permit?	N
Construction Permit Number/Issue Date :	
4. One or More Emission Units Subject to NSPS?	N
5. Facility Regulatory Classifications Comment :	
THIS FACILITY IS A TRUE MINOR SOURCE OF AIR EMISSIONS.	

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

ANIMAL CREMATOR

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 1

A. GENERAL EMISSIONS UNIT INFORMATION

Type of Emissions Unit Addressed in This Section

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : ANIMAL CREMATOR	
2. Emissions Unit Identification Number : 001 [ ] No Corresponding ID [ ] Unknown	
3. Emissions Unit Status Code : A	4. Emissions Unit Major Group SIC Code : 89
5. Emissions Unit Comment : THIS EMISSIONS UNIT CONSISTS OF THE C-500P INCINERATOR, MANUFACTURED BY CRAWFORD EQUIPMENT AND ENGINEERING.	

Emissions Unit Control Equipment 1

1. Description : DIRECT FLAME AFTERBURNER
2. Control Device or Method Code : 21

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
ANIMAL CREMATOR

Emissions Unit Details

1. Initial Startup Date :		
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating :	MW	
5. Incinerator Information :		
Dwell Temperature :	1,800	Degrees Fahrenheit
Dwell Time :	1.00	Seconds
Incinerator Afterburner Temperature :	1,600	Degrees Fahrenheit

Emissions Unit Operating Capacity

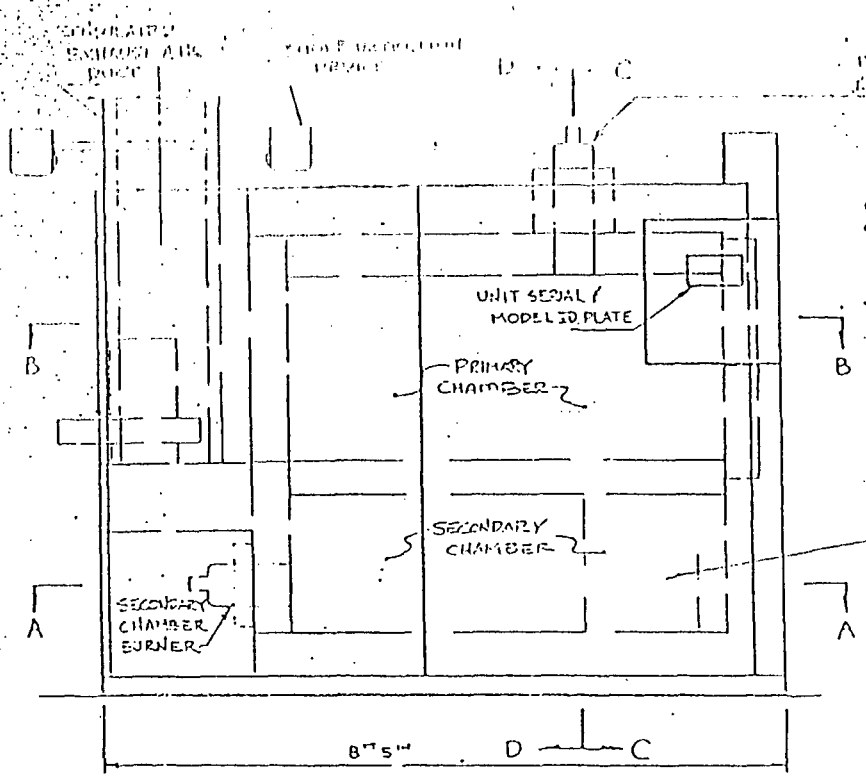
1. Maximum Heat Input Rate :	2	mmBtu/hr	
2. Maximum Incinerator Rate :	75.00	lb/hr	tons/day
3. Maximum Process or Throughput Rate :			
4. Maximum Production Rate :			
5. Operating Capacity Comment : THIS C-500P INCINERATOR WILL BE USED FOR THE CREMATION OF DEAD ANIMALS.			

Emissions Unit Operating Schedule

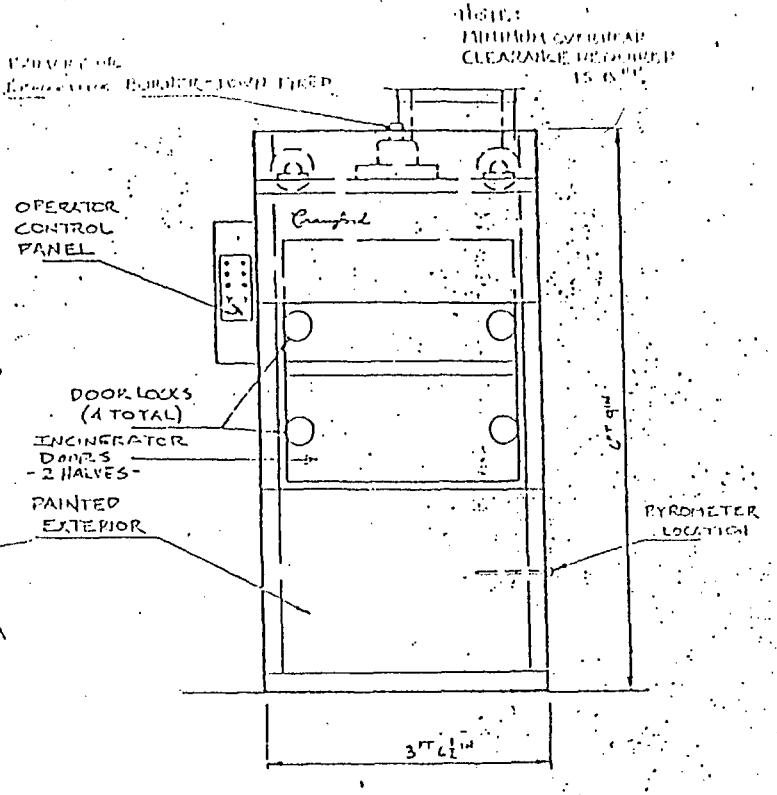
Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

DR4500A Classic Series Circular Chart Recorder With or Without Control Product Manual

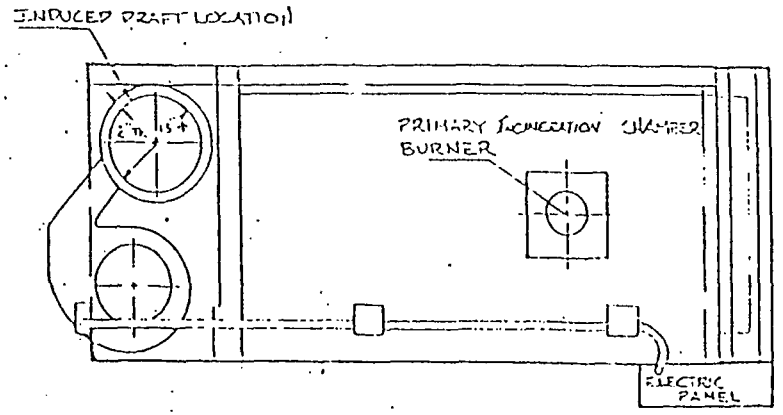
44-45-25-35A
7/94



SIDE VIEW



FRONT VIEW



TOP VIEW

ELECTRICAL:

CONTROL CIRCUIT - 110 VAC, 10 AMPS
BLOWER - 3HP 3 ϕ, 208VOLT/8.2AMP, 230VOLT/7.8AMP, 460VOLT/3.9AMP
3HP 1 ϕ, 115 VOLT/28 AMP, 208VOLT/14.7AMP, 230 VOLT/14 AMP

COMBUSTION AIR:

MINIMUM ONE (1) [illegible] LOUVER OUTSIDE AIR VENT REQUIRED PER UNIT.

GAS REQUIREMENTS:

NATURAL GAS - 9" W.C.
PROPANE GAS - 11" W.C.
PRIMARY BURNER SIZE (INPUT) 175,000 BTU/HR.
SECONDARY BURNER SIZE (INPUT) 300,000 BTU/HR.
GAS REGULATOR REQUIRED FLOW 1,000,000 BTU/HR.

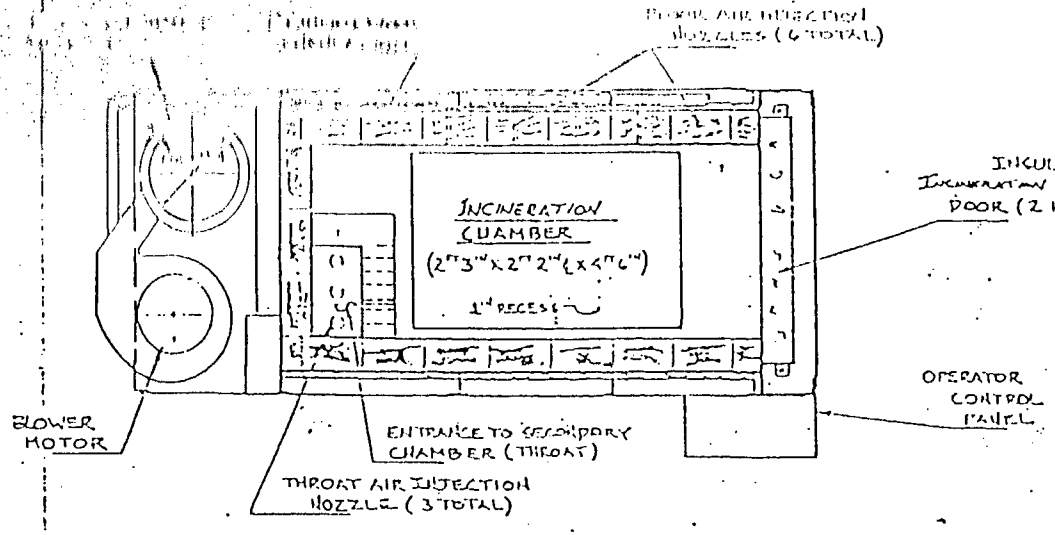
CRAWFORD

Crawford Pathological Waste Incineration Chamber

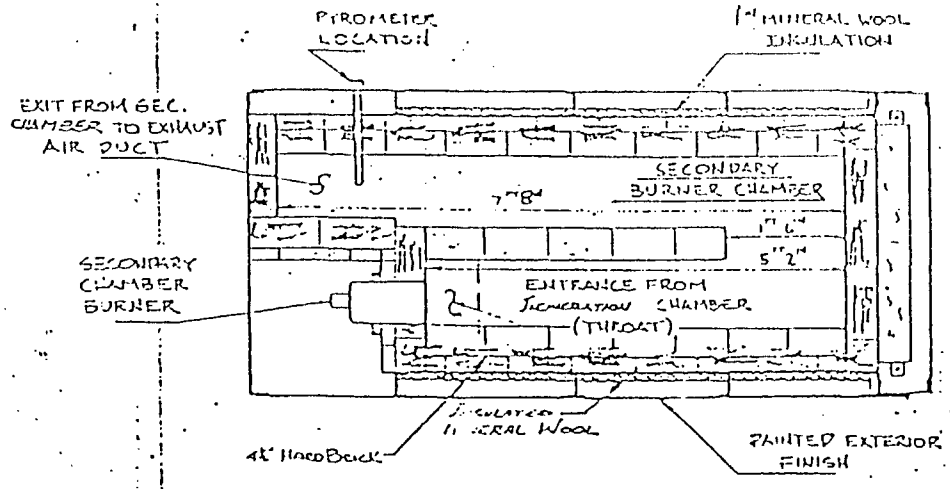
DATE: 4-15-86

Crawford Equipment Engineering Co.
P.O. Box 13243 Orlando FL 32809

DWG. NO. C-500P



SECTION B-B



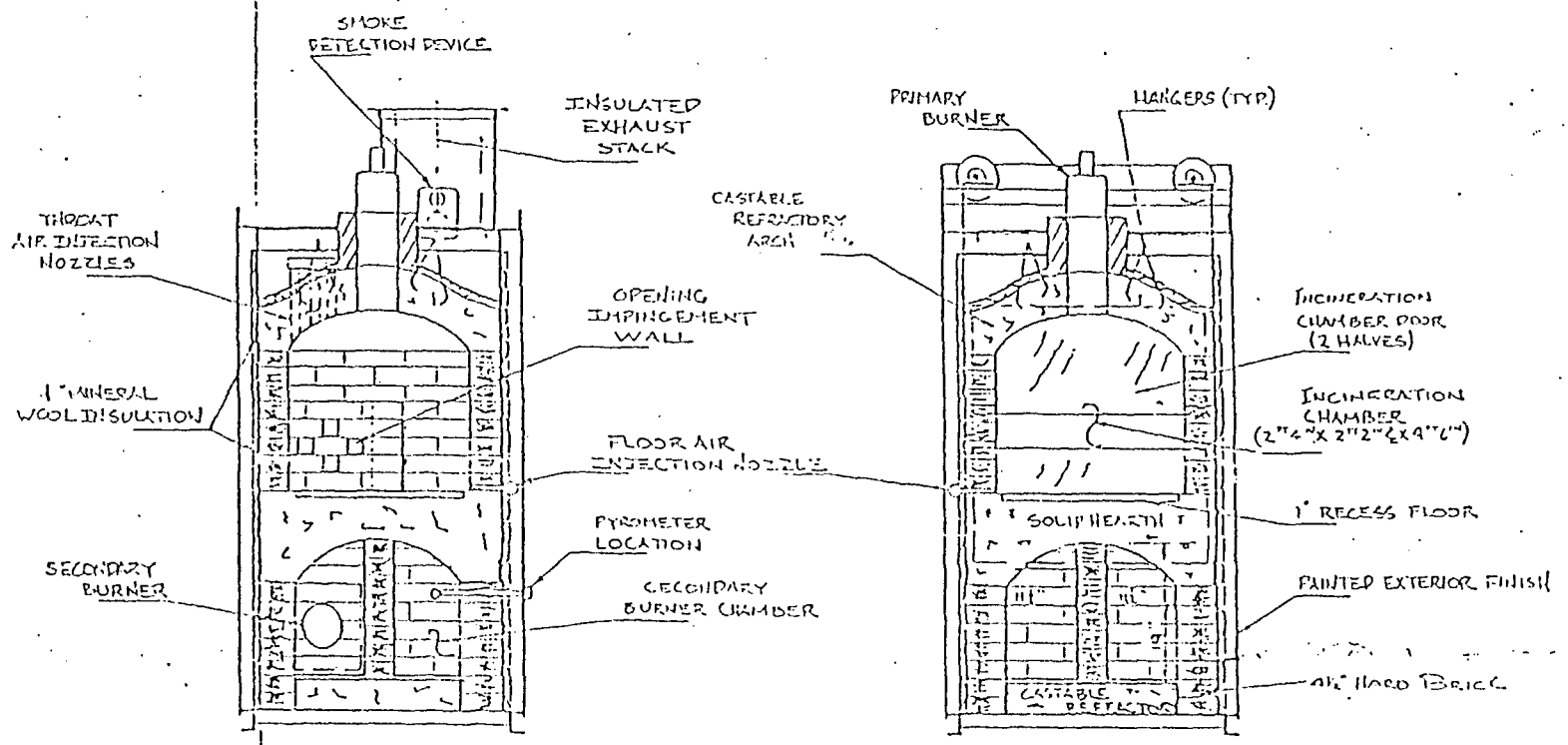
SECTION A-A

CRAWFORD EQUIPMENT & ENGINEERING

PROPRIETARY

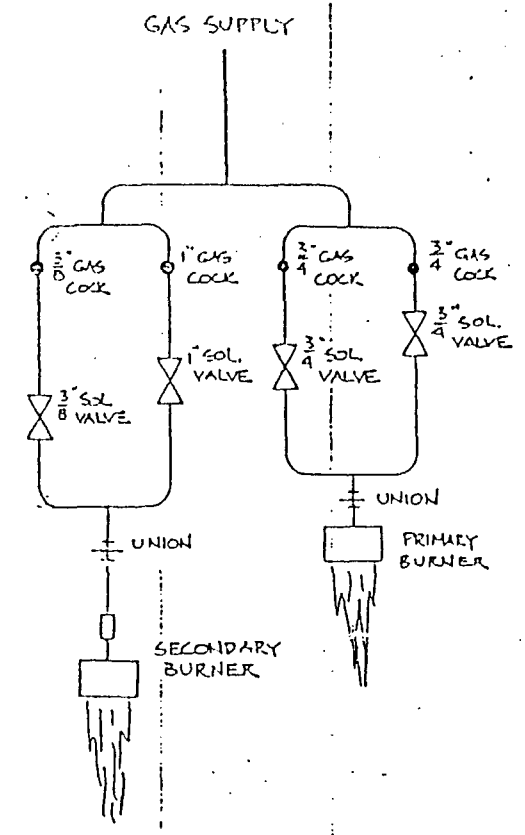
Control Refractory/Plastic Incineration Chamber

CRAWFORD EQUIPMENT & ENGINEERING

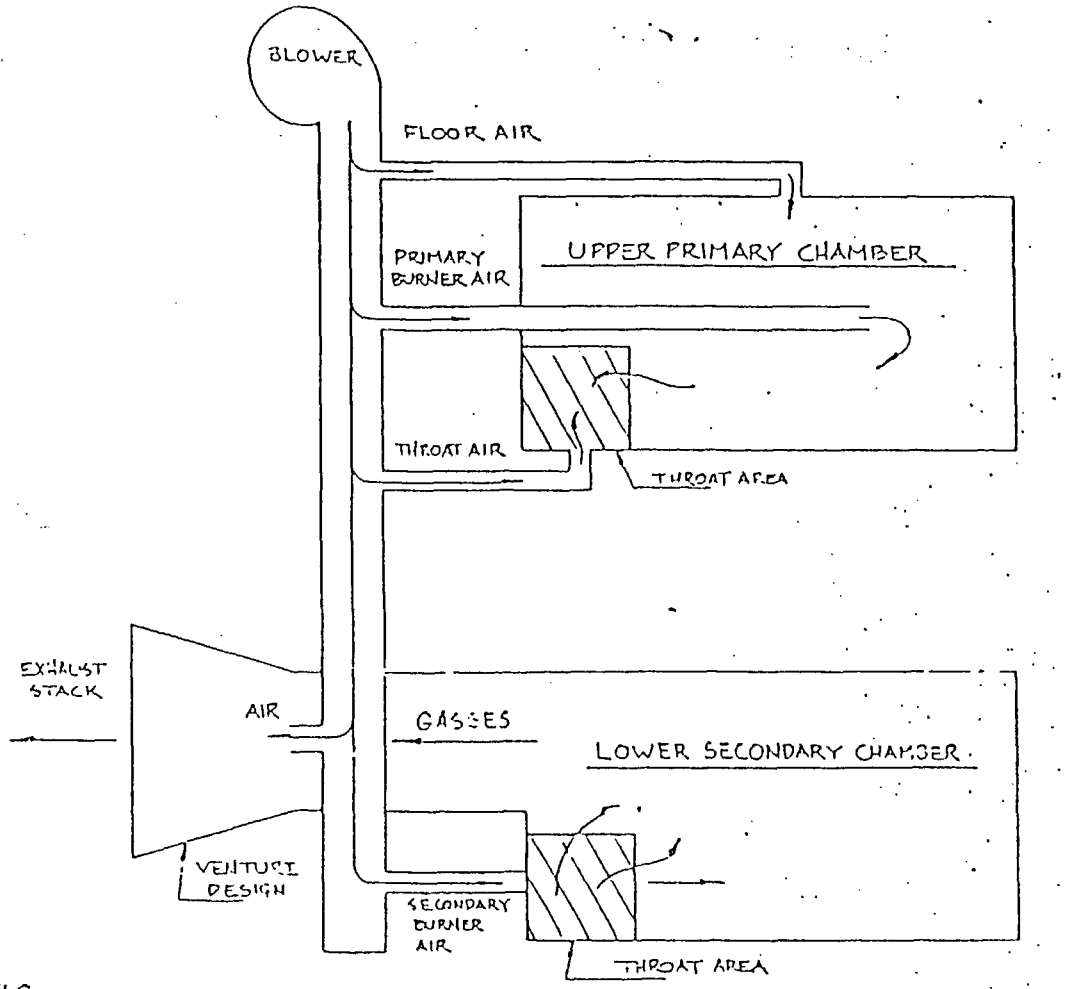


SECTION D-D

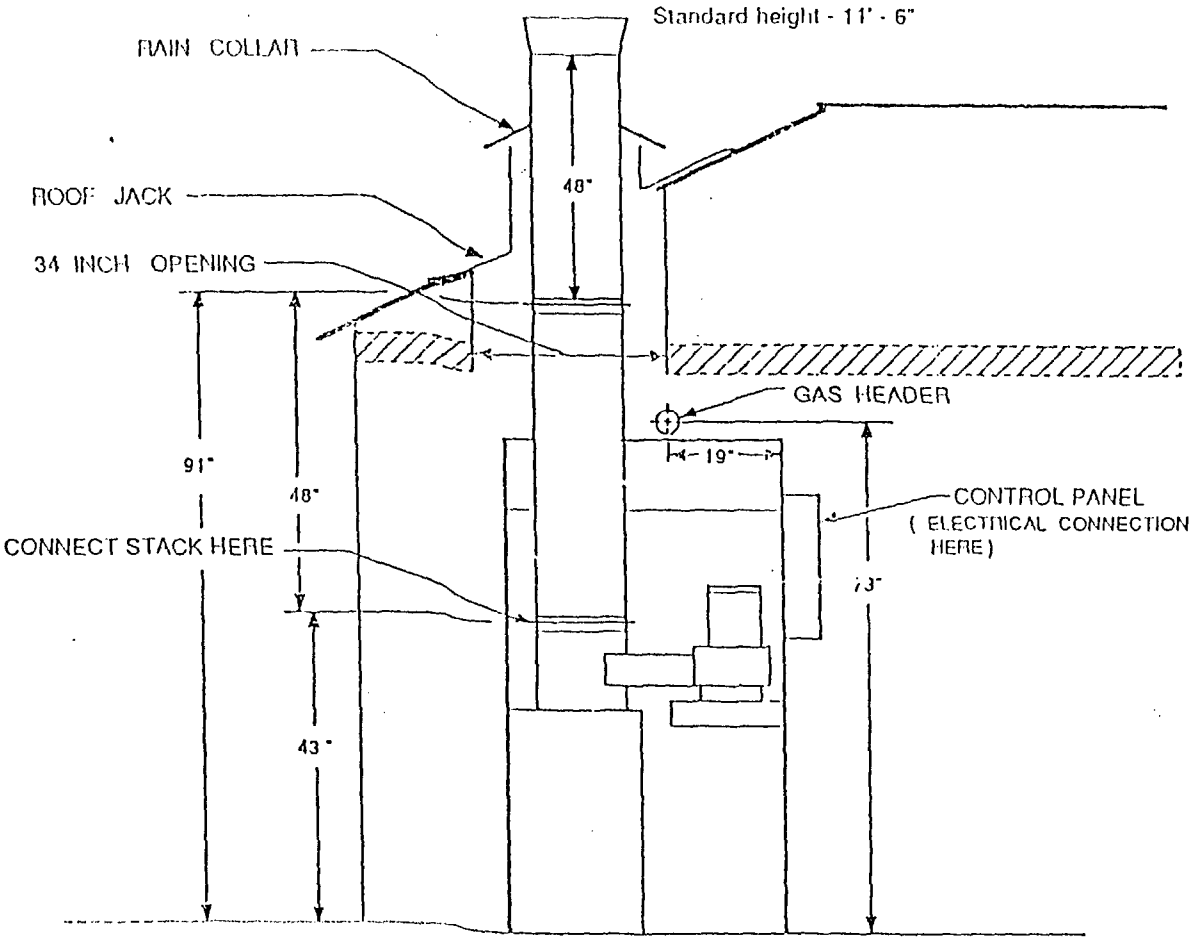
SECTION C-C

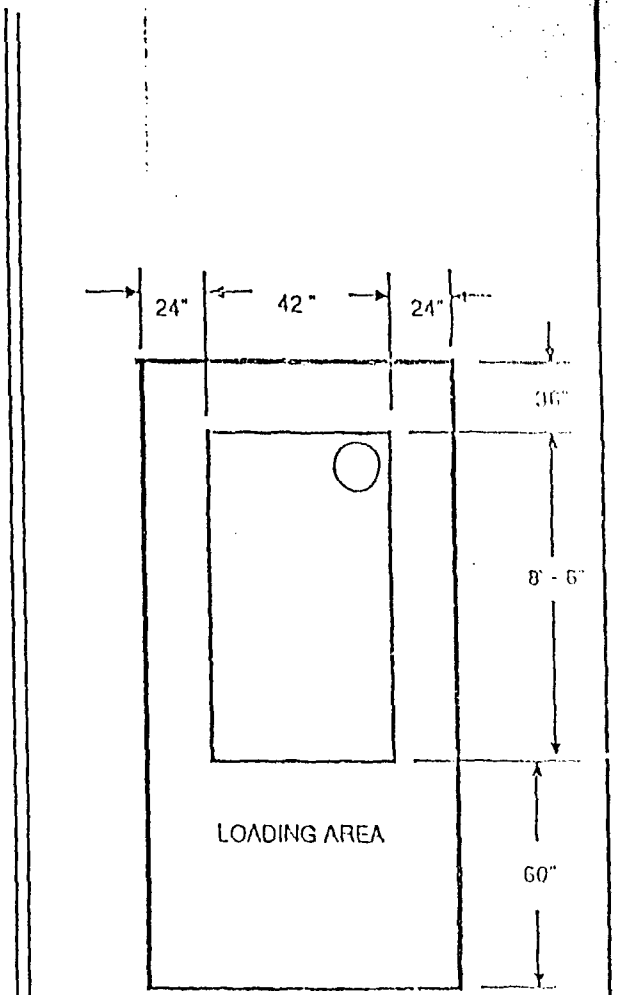


GAS FLOW SCHEMATIC



AIR FLOW SCHEMATIC





MINIMAL FLOOR PLAN CLEARANCES

NOTE: Per Underwriters Laboratories, Inc.: MINIMUM CLEARANCES TO COMBUSTIBLES AS FOLLOWS

SUPPLEMENTAL DOCUMENT NO. 2

Compliance Test Report

SOURCE TEST REPORT
for
PARTICULATE, CARBON MONOXIDE
AND VISIBLE EMISSIONS

FLORIDA DEPARTMENT OF AGRICULTURE
MIAMI, FLORIDA

ANIMAL CREMATORY
INCINERATOR OUTLET
FDER PERMIT NUMBER AC13-222808

MAY 25, 1993

Prepared for:

CRAWFORD EQUIPMENT AND ENGINEERING COMPANY
436 WEST LANDSTREET ROAD
ORLANDO, FLORIDA 32809

Prepared by:

AIR CONSULTING AND ENGINEERING, INC.
2106 N.W. 67TH PLACE, SUITE 4
GAINESVILLE, FLORIDA 32606
(904) 335-1889

120-93-02

ACE
AIR CONSULTING
& ENGINEERING, INC.

2106 N.W. 67th Place • Suite 4 • Gainesville, Florida • 32606
(904) 335-1889 FAX (904) 335-1891

REPORT CERTIFICATION

To the best of my knowledge, all applicable field and analytical procedures comply with Florida Department of Environmental Regulation requirements and all test data and plant operating data are true and correct.

Dagmar Fick

Date

1.0 INTRODUCTION

On May 25, 1993, Air Consulting and Engineering, Inc. (ACE), conducted Particulate (PM), Carbon Monoxide (CO), and Visible Emissions (VE) testing on the Incinerator Outlet Stack at the Florida Department of Agriculture in Miami, Florida.

The following United States Environmental Protection Agency (EPA) methods were used; EPA Method 5 for particulate, EPA Method 10 for CO, and EPA Method 9 for visible emissions.

A Thermo electron Model 48 CO analyzer and a Teledyne 320P O_2 analyzer were utilized for the testing.

Mr. Steve Atkinson of Crawford Equipment and Engineering Company (Crawford) coordinated testing and provided incinerator data.

2.0 SUMMARY AND DISCUSSION OF RESULTS

The Incinerator was found to be operating within the emission compliance limits for particulate, CO, and visible emissions.

Table 1 summarizes the test results.

Particulate outlet emissions averaged 0.012 grains per standard cubic feet (gr/SCF) corrected to 7% oxygen (O_2) which is within the permitted limit of 0.08 gr/SCF.

Carbon Monoxide emissions averaged 6.06 parts per million (ppm) corrected to 7% O_2. The allowable limit is 100 ppm.

Visible emissions averaged 0.0 percent opacity for the highest six minute period of the test (see Appendix E).

Emission summary, field data sheets, laboratory data, and strip chart copies are presented in Appendices A, B, C, and D, respectively.

Table 1 Emission Summary
Incinerator Outlet
Florida Department of Agriculture
Miami, Florida
May 25, 1993

Run Number	Time	Flow Rate SCFMD	Oxygen %	Particulate Emissions gr/SCF	Particulate Emissions gr/SCF @ 7% O2	Particulate Emissions lbs/Hr	CO Emissions ppm	CO Emissions ppm @ 7% O2
1	1114-1216	604	17.4	0.003	0.014	0.018	2.5	9.90
2	1302-1405	558	15.2	0.003	0.008	0.016	2.1	5.10
3	1444-1546	544	13.8	0.008	0.015	0.037	1.62	3.18
AVERAGE	---	569	15.5	0.005	0.012	0.024	2.07	6.06

$$gr/SCF\ @\ 7\%\ O_2 = gr/SCF \frac{20.9 - 7}{20.9 - \%O_2}$$

3.0 PROCESS DESCRIPTION AND OPERATION

The Florida Department of Agriculture owns and operates a Crawford Model C500P Incinerator with a design capacity of 75 pounds per hour.

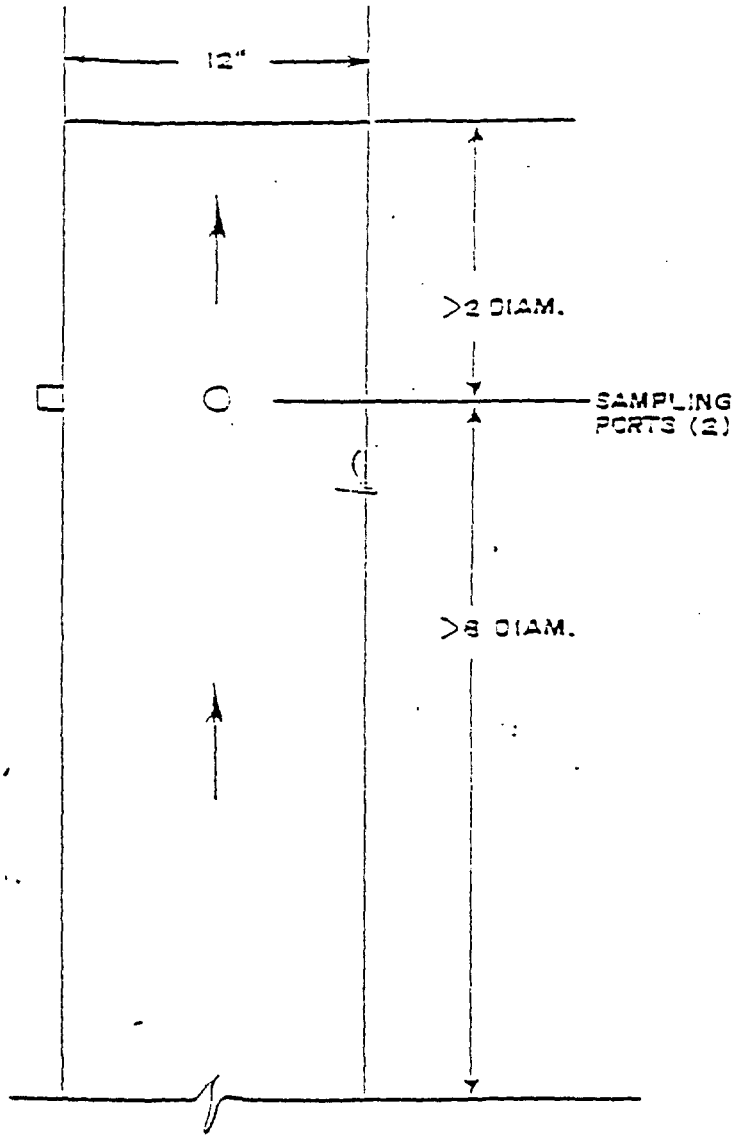
During the emission test 73 lbs/Hr of animal waste was burned.

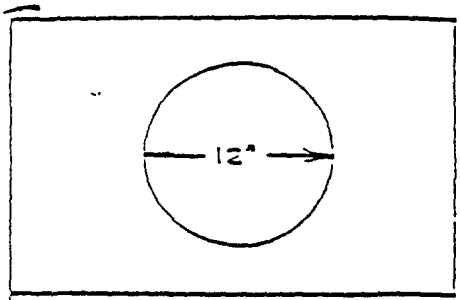
The secondary chamber temperature averaged 1683° F.

The residence time in the secondary chamber averaged 1.12 seconds for a temperature of 1656°F (see Appendix G).

4.0 SAMPLING POINT LOCATION

Figure 1 is a schematic of the incinerator exhaust stack and provides individual sampiing point locations.





TRAVERSE POINT NUMBER	INCHES INSIDE STACK WALL
1	.53
2	1.75
3	3.55
4	8.45
5	10.25
6	11.47

NOTE: NOT TO SCALE

FIGURE 1
SAMPLING POINT LOCATION
CRAWFORD SCO F INCINERATOR

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ENGINEERING

5.0 FIELD AND ANALYTICAL PROCEDURES

5.1 Particulate Matter Sampling and Analysis--EPA Method 5 (Glass Probe)

Particulate matter samples were collected by the particulate matter emission measurement method specified by the United States Environmental Protection Agency. A schematic diagram of the sampling train used is shown in Figure 2. All particulate matter captured from the nozzle to, and including, the filter was included in the calculation of the emission rate of particulate matter.

PREPARATION OF EQUIPMENT

1. FILTERS - Gelman type "A" filters were placed in a drying oven for two hours at 105 degrees C, removed and placed in a standard desiccator containing indicating silica gel, allowed to cool for two hours, and weighed to the nearest 0.1 mg. The filters were then re-desiccated for a minimum of six hours and weighed to a constant weight (less than 0.5 mg change from previous weighing). The average of the two constant weights was used as the tare weight.

2. NOZZLE, FILTER HOLDER, AND SAMPLING PROBE - The nozzle, filter holder, and sampling probe were washed vigorously with soapy water and brushes, rinsed with distilled water and acetone, and dried prior to the test program. All openings on the sampling equipment were sealed while in transit to the test site.

3. IMPINGERS - The Greenburg-Smith impingers were cleaned with a warm soapy water solution and brushes, rinsed with distilled water and acetone, and dried. The impingers were sealed tightly during transit.

TEST PROCEDURE

Prior to performing the actual particulate matter sample runs, certain stack and stack gas parameters were measured. These preliminary measurements included the average gas temperature, the stack gas velocity head, the stack gas moisture content, and the stack dimensions at the point where the tests were being performed. The stack gas temperature was determined by using a

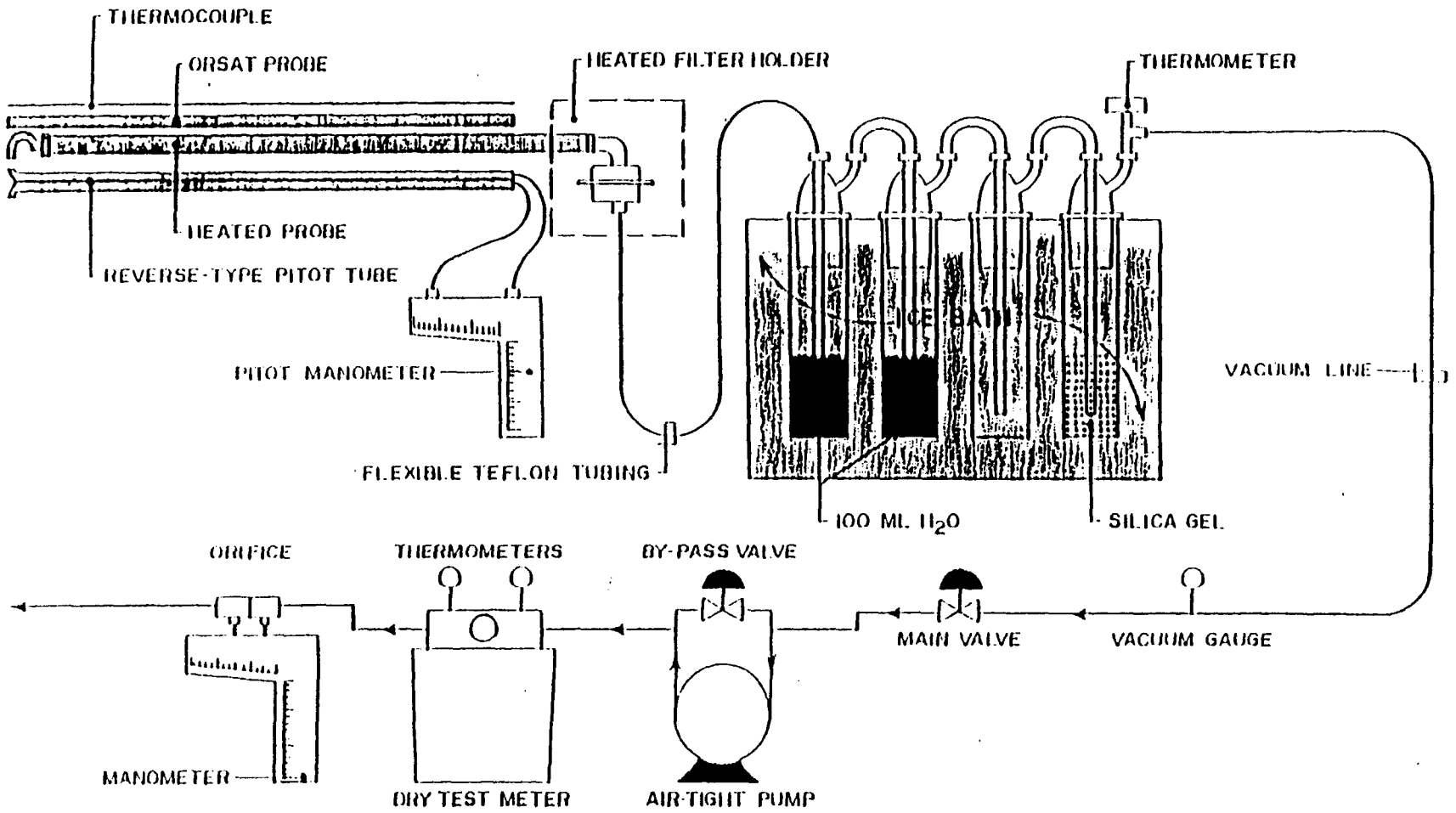

FIGURE 1
EPA METHOD 5 SAMPLING TRAIN

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bi-metallic thermocouple and calibrated pyrometer. Velocity head measurements were made with calibrated type "S" pitot tube and an inclined manometer. Velocity head measurements of 0.05 inches H_2O or less were measured utilizing a micromanometer.

The sampling traverse points were selected so that a representative sample could be extracted from the gas stream. The traverse points were located in the center of equal areas, the number of which were dependent upon the distance upstream and downstream from flow disturbances.

Each particulate matter test run consisted of sampling for a specific amount of time at each traverse point. The type "S" pitot tube was connected to the sampling probe so that an instantaneous velocity head measurement could be made at each traverse point while making the test run. The stack gas temperature was also measured at each traverse point. Nomographs were used to calculate the isokinetic sampling rate at each traverse point during each test run.

The gases sampled passed through the following components: a stainless steel nozzle and glass probe; a glass fiber filter; two impingers each with 100 ml of distilled deionized water; one impinger dry; one impinger with 200 grams of silica gel; a flexible sample line; an air-tight pump; a dry test meter; and a calibrated orifice. The second impinger had a standard tip, while the first,

third, and fourth impingers had modified tips with a 0.5 inch I.D. opening.

Sample recovery was accomplished by the following procedures:

1. The pre-tared filter was removed from its holder and placed in Container 1 and sealed. (This is usually performed in the lab.)

2. All sample-exposed surfaces prior to the filter were washed with acetone and placed in Container 2, sealed and the liquid level marked.

3. The volume of water from the first three impingers was measured for the purpose of calculating the moisture in the stack gas and then discarded.

4. The used silica gel from the fourth impinger was transferred to the original tared container and sealed.

LABORATORY ANALYSIS

The three sample containers from each sample run were analyzed according to the following procedures:

1. The filter was dried at 105 degrees C for three hours, desiccated for a minimum of one hour, and weighed to the nearest 0.1 mg. A minimum of two such weighings six hours apart was made to determine constant weight.

2. The acetone from Container 2 was transferred to a tared beaker and evaporated to dryness at ambient temperature and pressure, desiccated for 24 hours, and weighed to the nearest 0.1 mg. A minimum of two such weighings six hours apart were made to determine constant weight.

3. The used silica gel in its tared container was weighed to the nearest 0.1 gram.

The total sample weight included the weight of material collected on the filter plus the weight of material collected in the nozzle, sampling probe, and front half of the filter holder.

DATA

The field data sheets, calculation sheets, and nomenclature definitions are included in the appendices of this report.

5.2 Visible Emissions Testing--EPA Method 9

The visible emission tests were performed in accordance with EPA Method 9. The observers maintain semi-annual FDER certification for the performance of visible emission tests.

All procedures listed in Method 9 were followed including observer's position relative to the sun, distance from the stack, and line of sight. These items are noted on the visible emission data sheet. Observations were made at 15-second intervals and recorded to the nearest 5 percent. The final opacity was determined by calculating the highest consecutive six minute average during the observation period.

5.3 Determination of Carbon Monoxide Emissions from Stationary Source --EPA Method 10

The sampling system is shown in Figure 3. A sample was drawn from the stack at a rate of approximately 2 SCFH. A stainless steel probe assembly was followed by a three-way stainless steel valve. The sample was pumped through an ice-cooled condensate trap followed by a 1/4" O.D. TEFLON sampling line.

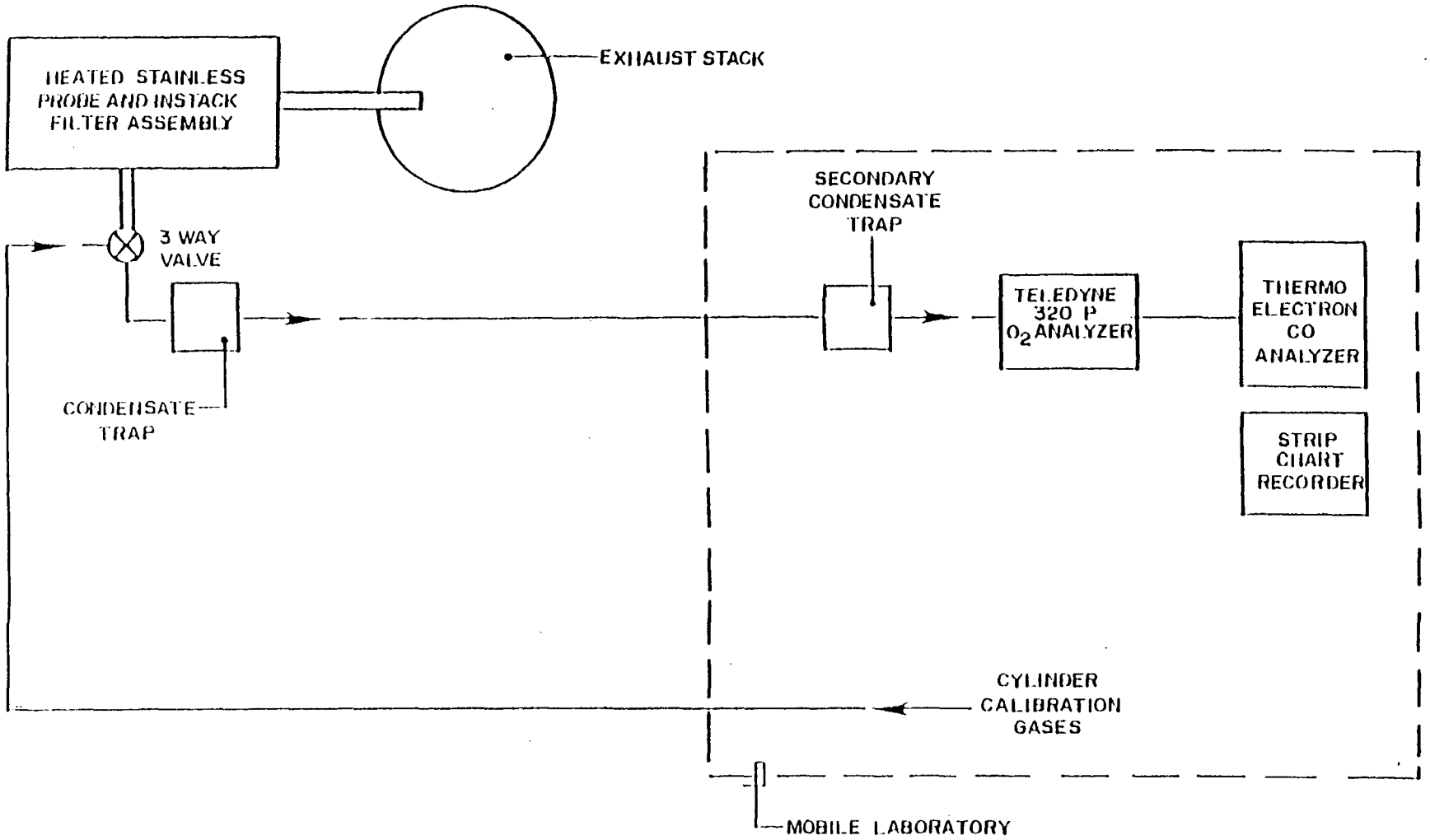

FIGURE 1.2.3.4.
EPA METHOD 10, 3A SAMPLING SCHEMATIC

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ENGINEERING

Calibration gases were introduced at the sampling interface (the three way valve) through another 1/4" O.D. TEFLON line. The sample pump delivered gases to a manifold system where one flow is divided between a Teledyne 320P O_2 analyzer and a Thermo Electron Model 48 CO analyzer (NDIR with gas filter correlation). Excess flow is dumped to ambient. All instrument responses were recorded on strip chart recorders. The sampling system yields O_2, and CO, concentrations on a dry gas basis.

Calibration gases consisted of CO, and O_2 standards in nitrogen. All calibration gases were certified NBS traceable, Protocol 1.

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