* ADDENDUM TO ORIGINAL FORM
THIS UPDATED FORM REPLACES ORIGINAL # 0210056-006.
RECEIPT DATE REMAINS 06/17/10.

RECEIVED
JUL 15 2010
Bureau of Air Monitoring & Mobile Sources

HUMAN 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)* 0210056-006

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): _____
- ☒ 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.)

Carriage Florida Holdings, Inc.

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.)

Fuller Funeral Home-Cremation Service

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

Street Address: 1625 Pine Ridge Road

City: Naples County: Collier Zip Code: 34109-2127

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

Estimated: August 20, 2010

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: Melvin C. Payne, President

Owner/Authorized Representative Mailing Address
Organization/Firm: Carriage Florida Holdings, Inc.
Street Address: 3040 Post Oak Blvd., Suite 300
City: Houston County: Texas Zip Code: 77056

Owner/Authorized Representative Telephone Numbers
Telephone: (713) 332-8400 Fax: (713) 332-5386
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: Michael S. Fuller, Funeral Director in Charge

Facility Contact Mailing Address
Organization/Firm: Fuller Funeral Home-Cremation Service
Street Address: 1625 Pine Ridge Road
City: Naples County: Collier Zip Code: 34109-2127

Facility Contact Telephone Numbers
Telephone: (239) 592-1611 Fax: (239) 592-1619
Cell phone (optional):

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.

Melvin C Payne
Signature

July 12, 2010
Date

Design Calculations

If this is an initial registration for a proposed new human 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.

☒ Registration is not for proposed new human crematory unit(s). THIS IS A NEW UNIT IN ADDITION TO EXISTING UNIT.

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.

Installation of new Ener-Tek human crematory unit into an existing funeral home.

See attached Manufacturer's design calculations for new unit.

Existing Unit --1996 IEE Power Pak II (PPII), natural gas; Eclipse 104 Afterburner (control equipment); Honeywell DR4200 temperature chart recorder, MLS-A Heat Timer opacity system, rated at 150 PPH.

GARDNER, BIST, WIENER, WADSWORTH & BOWDEN, P.A.
ATTORNEYS AT LAW
1300 THOMASWOOD DRIVE
TALLAHASSEE, FLORIDA 32308

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AMANDA L. HALL
MURRAY M. WADSWORTH, JR.
BRUCE I. WIENER*
WENDY RUSSELL WIENER

*BOARD CERTIFIED REAL ESTATE ATTORNEY

TELEPHONE:
(850) 385-0070

FACSIMILE:
(850) 385-5416

OF COUNSEL:
MURRAY M. WADSWORTH

July 15, 2010

Via Hand Delivery
Dickson E. Dibble
Air General Permits Section
Florida Department of Environmental Protection
Tallahassee, Florida 32315-3070

Re: Carriage Florida Holdings, Inc.
Air General Permit Registration Form (REVISED)

Dear Mr. Dibble:

Thank you very much for the assistance on revising the enclosed form.

If you have any questions or need additional information, please don't hesitate to contact us.

Sincerely,

Kellie Hoover

Kellie Hoover, MLS
Paralegal

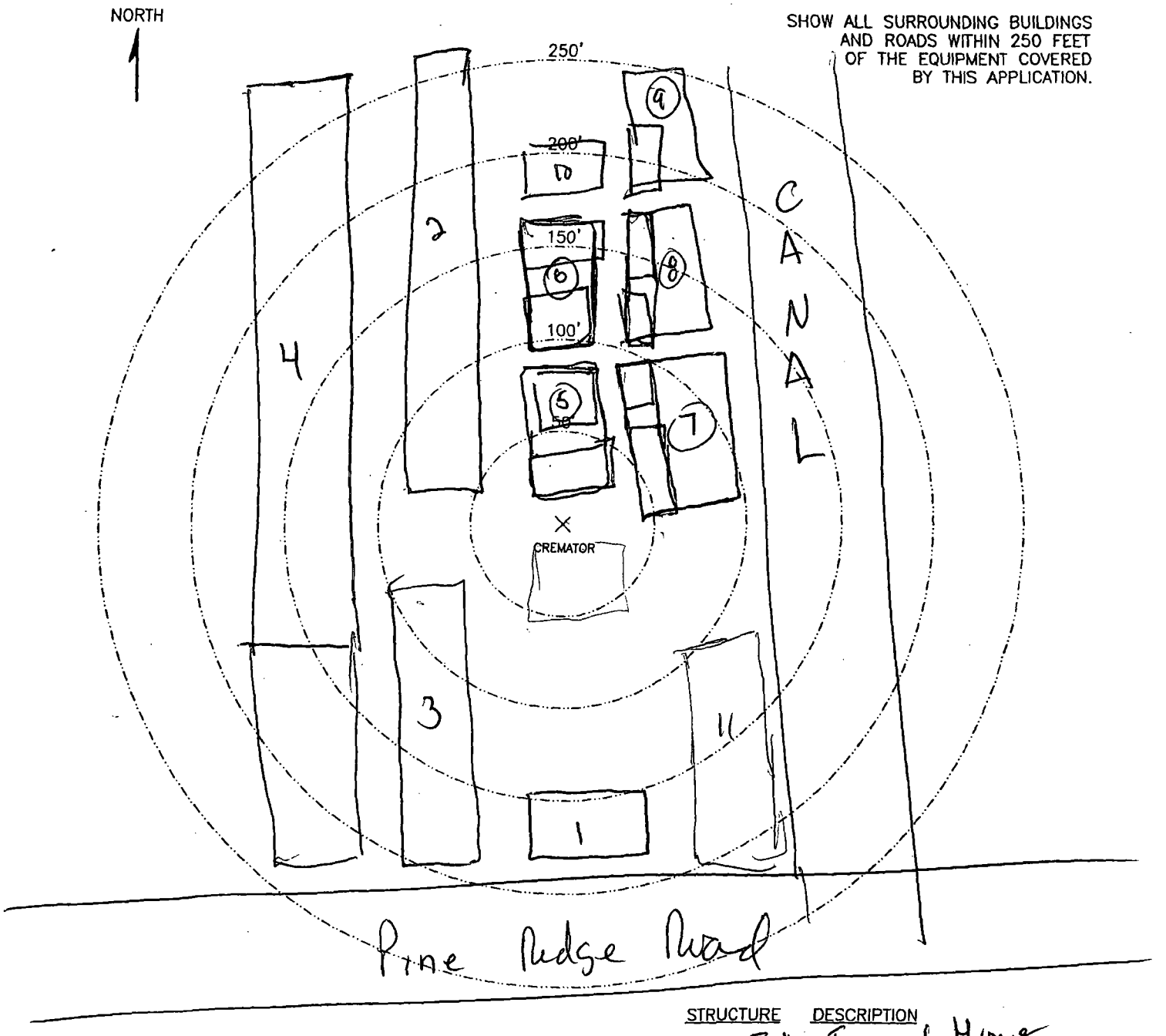
Enclosure

GARDNER, BIST, WIENER,
WADSWORTH & BOWDEN, P.A.
ATTORNEYS AT LAW
1300 THOMASWOOD DRIVE
TALLAHASSEE, FLORIDA 32308

FORWARDING AND
ADDRESS CORRECTION REQUESTED

Dickson E. Dibble
Air General Permits Section
Florida Department of Environmental Protection
Tallahassee, Florida 32315-3070

PLOT PLAN



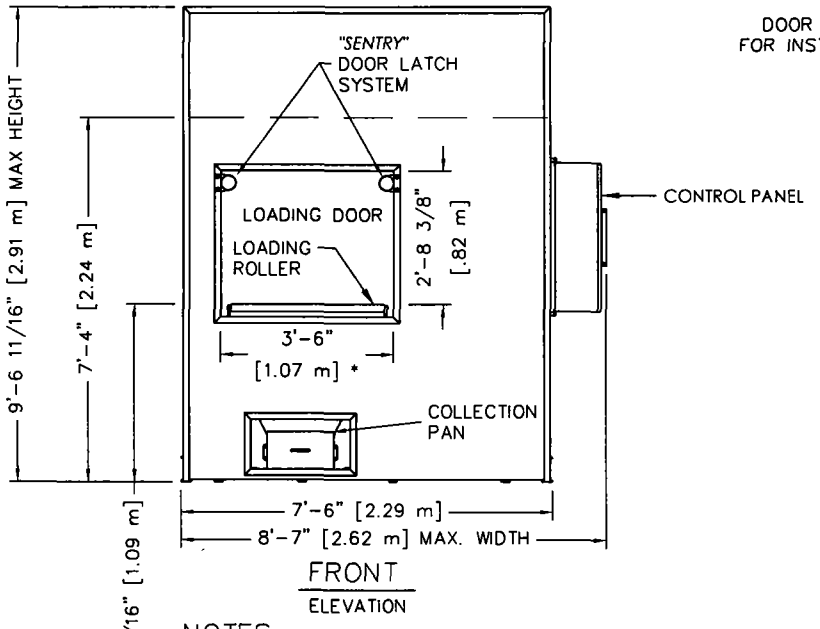
STRUCTURE DESCRIPTION

(1) Fuller Funeral Home
(2) Storage Facility
(3) Storage Facility
(4) Storage Facility
(5) Roofing contractor
(6) Empty
(7) Auto body
(8) Auto body
(9) Auto body
(10) vacant

11

INSTRUCTIONS

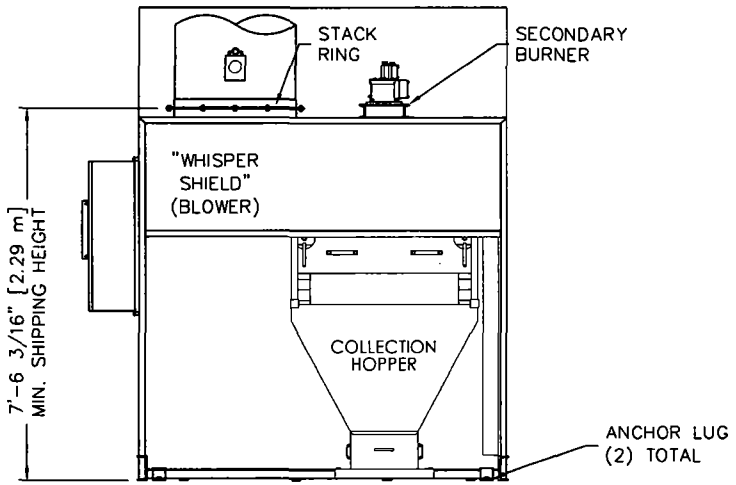
1. INDICATE LOCATION AND TYPE OF BUILDING BY THE USE OF SMALL NUMBERED CIRCLES WITH THE DESCRIPTION BELOW.
2. SHOW ROADS AS LINES REPRESENTING THE ROAD EDGES. INDICATE STREET NAMES AND HIGHWAY NUMBERS.
3. SHOW WOODED OR CLEARED AREA BY APPROXIMATE BOUNDARY LINES AND THE WORDS "WOODS," "CLEARED," "CORNFIELD," ETC.



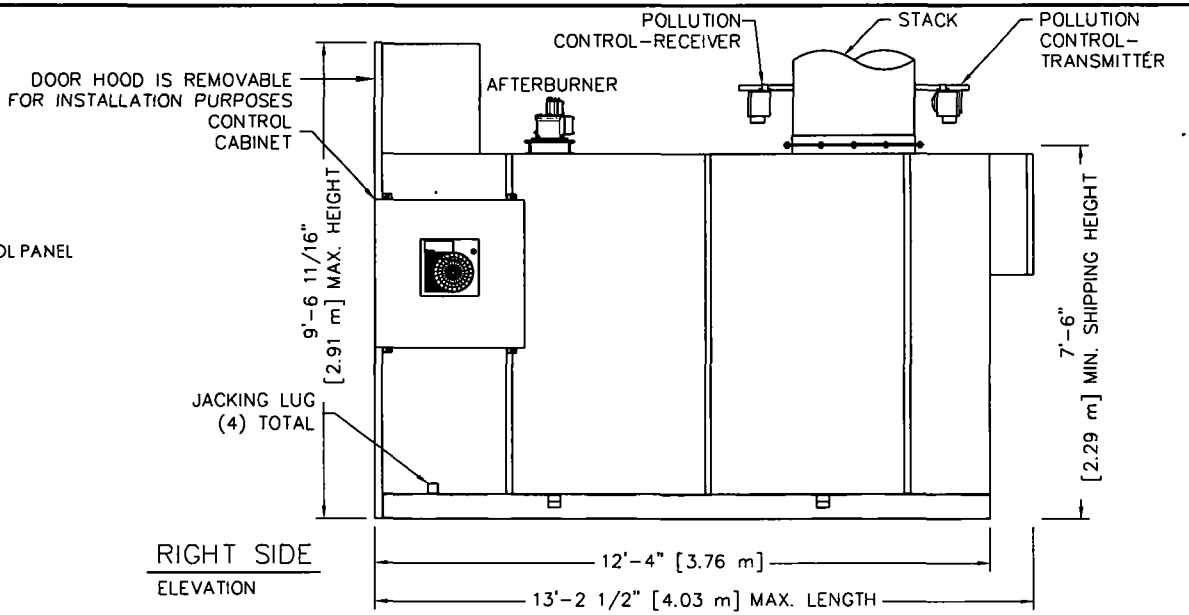
FRONT
ELEVATION

NOTES:

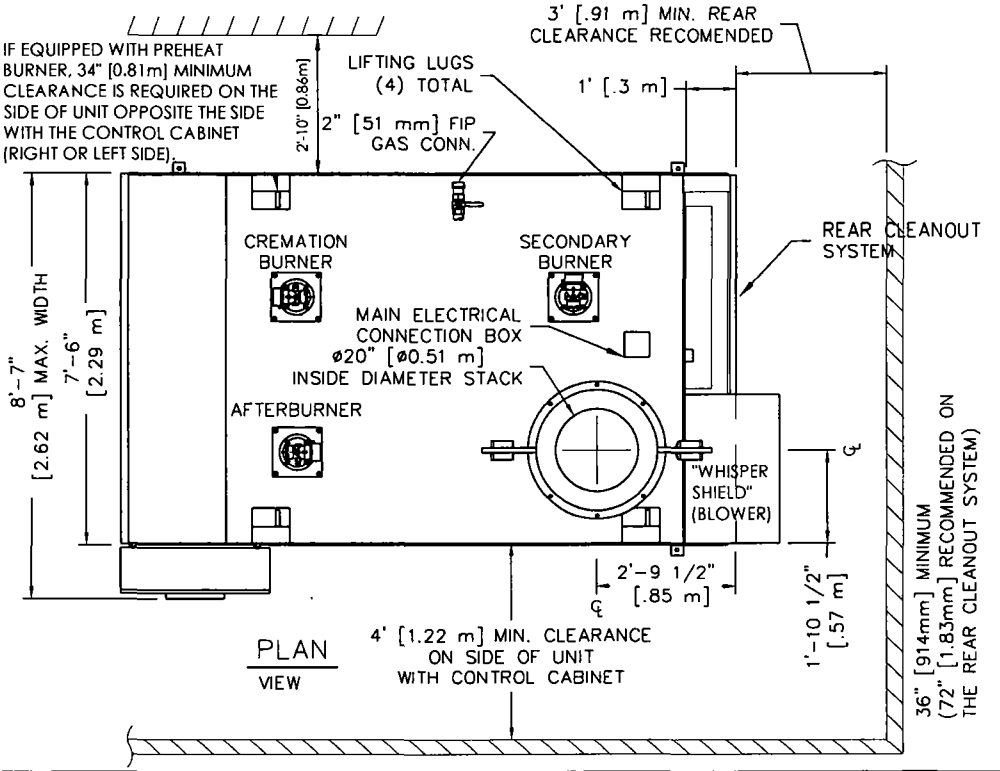
1) CONTROL CABINET CAN BE MOUNTED ON THE LEFT OR RIGHT SIDE, OR REMOTELY.
2) CHAMBER WIDTH IS 36" [0.91m].



REAR
ELEVATION



RIGHT SIDE
ELEVATION



PLAN
VIEW

Matthews CREMATION DIVISION
2045 Sprint Boulevard
Apopka, Florida 32703
USA

ENER-TEK IV

PLAN & ELEVATIONS INCL: CLEARANCES, REQUIREMENTS & RECOMMENDATIONS

DATE:	10-26-06	SCALE:	1/4"=1'
DRAWN:	JG	PLOT SCALE:	1:48
APRVD:		SHEET:	1 OF: 2
DWG FILE:	E-T IV-MarketingPlanElevS1R2		
DWG #:	0000197		

CREMATOR CLEARANCES

	RECOMMENDED		MINIMUM	
TOP: (2)	2 FEET	[610 mm]	6 INCHES	[152 mm]
CABINET SIDE:	4 FEET	[1.22 m]	4 FEET	[1.22 m]
OTHER SIDE:	2 FEET	[610 mm]	6 INCHES	[152 mm]
FRONT:	9 FEET	[2.74 m]	8 FEET	[2.44 m]
REAR:	3 FEET	[0.91 m]	32 INCHES	[812 mm]
STACK:	6 INCHES	[152 mm]	6 INCHES	[152 mm]

1. FOR CLEARANCES OTHER THAN THOSE SHOWN, OR FOR SPECIAL REQUIREMENTS, CONSULT YOUR MCD REP.

(2.) FROM HIGHEST POINT ON UNIT.

3. CONTROL CABINET MOUNTS ON UNIT'S LEFT OR RIGHT SIDES, OR REMOTELY. (SEE PLAN VIEW, SHEET 1).

4. REAR OF UNIT REFERS TO THE "BACK PLATE", RATHER THAN THE BACK OF THE *"WHISPER SHIELD"*. (SEE PLAN VIEW, SHEET 1).

CREMATOR REQUIREMENTS

FUEL: A PRESSURE REGULATOR ADJUSTABLE TO 7" [178 mm] W.C. FOR NATURAL GAS, OR 11" [279 mm] W.C. FOR LP GAS.

CAPACITY: RANGES FROM 2.0 TO 3.0 MILLION BTU/HR [2.1 TO 3.1 MILLION KILOJOULES/HR] DEPENDING UPON AMOUNT OF BURNERS.

ELECTRICAL: 230 VOLT, 3ø,(70A BREAKER) AND 115v (10A BREAKER), OR 230 VOLT, 1ø, (100A BREAKER) AND 115v (10A BREAKER) 50/60 HERTZ

AIR: LOUVER NEAR THE REAR OF THE UNIT CAPABLE OF PASSING 2,500 CU FT/MIN [70.8 CU M/MIN] OF FREE AIR (36" X 36") [914 mm X 914 mm].

STACK INSTALLATION INSTRUCTIONS

1. APPLY A 1/2" THICK MORTAR JOINT TO EXPOSED REFRACTORY SURFACE IN STACK RING. LOWER THE BASE STACK SECTION (B) ONTO STACK RING (A) AND FASTEN WITH HARDWARE PROVIDED (NO MORE THAN (2) STACK SECTIONS SHALL BE LIFTED TOGETHER). REPEAT PROCESS FOR REMAINING STACK SECTIONS. IF SECTIONS OF VARYING LENGTHS ARE SUPPLIED, ASSEMBLE AS TO AVOID FLANGES & LIFTING EYES INTERFERING WITH RAIN COLLAR LOCATION.

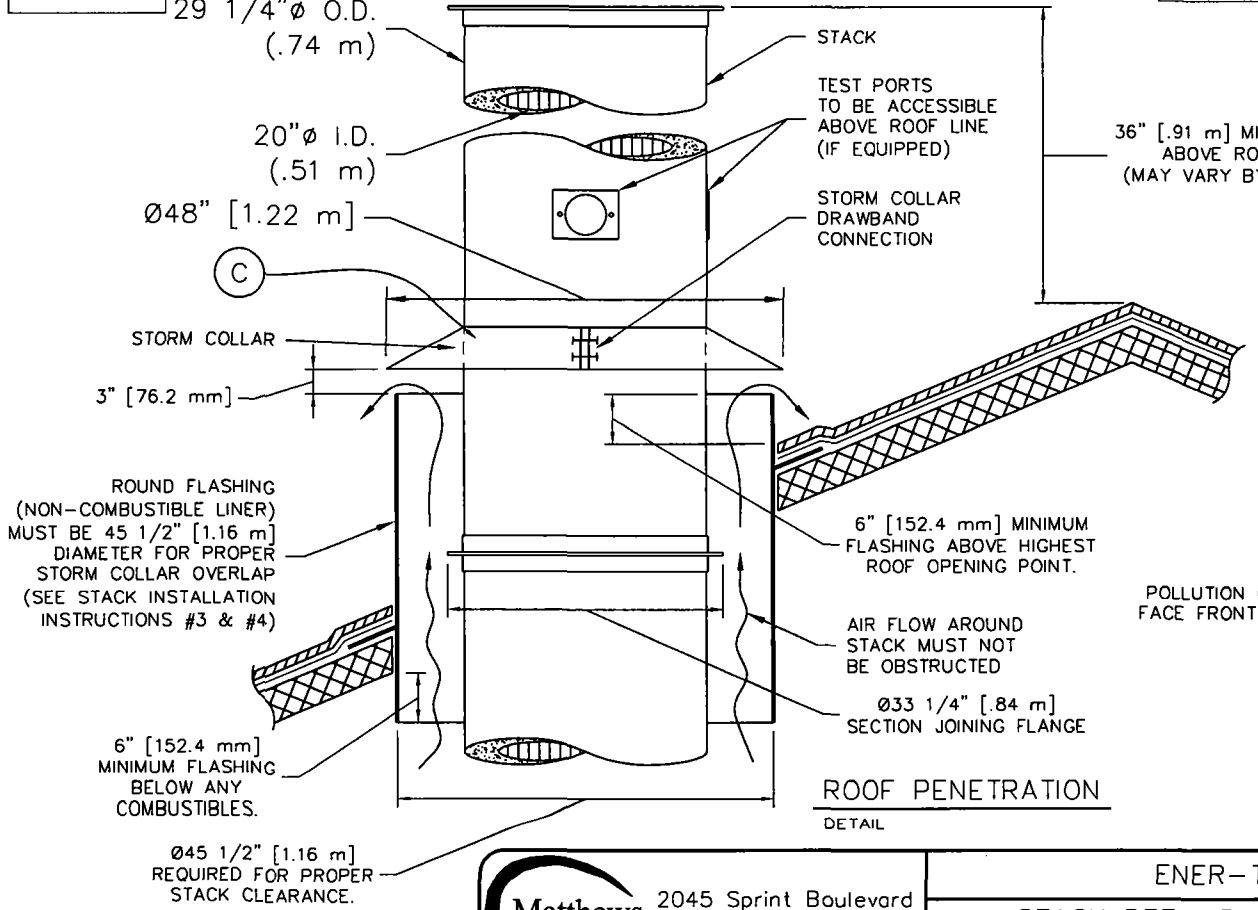
2. INSTALL STORM COLLAR ON STACK, 3" [72 mm] ABOVE NON-COMBUSTIBLE LINER (FLASHING), ALLOWING FOR PROPER VENTILATION (SEE DETAIL).

3. APPLY A 1/4" [6 mm] BEAD OF HIGH-TEMPERATURE SILICON SEALANT (PROVIDED BY MCD) TO THE JOINT BETWEEN THE STORM COLLAR (C) AND THE STACK (B).

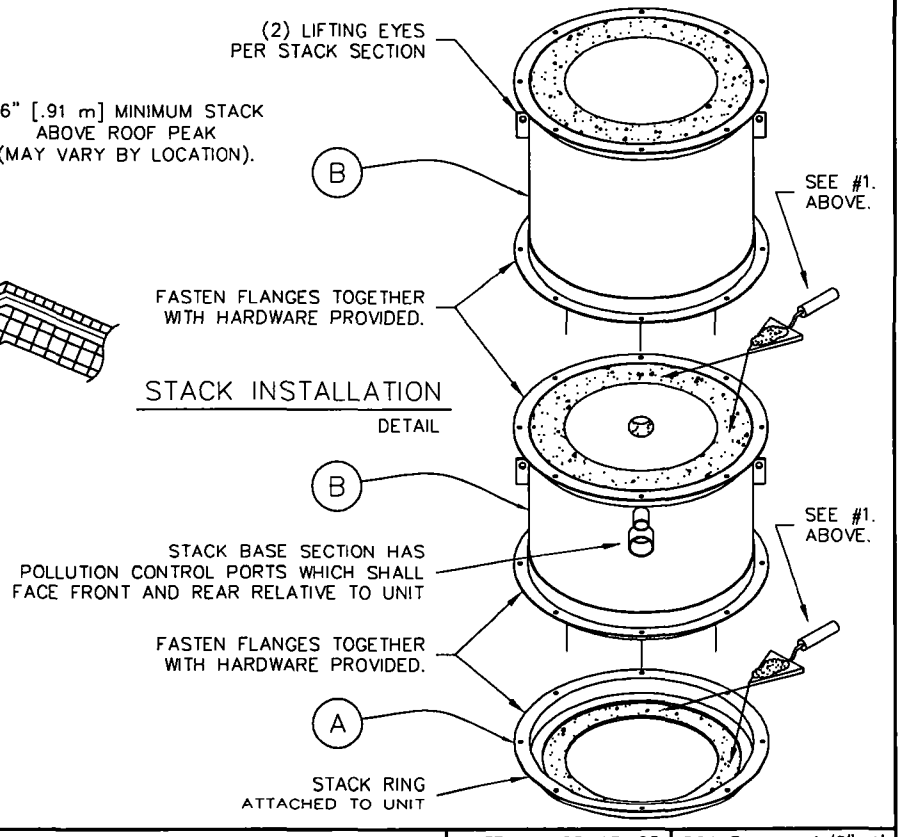
4. STORM COLLAR IS FURNISHED BY MCD. THE NON-COMBUSTIBLE LINER (FLASHING) TO BE PROVIDED BY THE OTHERS.

5. IF FIFTY PERCENT OF THE STACK LENGTH IS ABOVE THE ROOF, GUY WIRES MAY BE REQUIRED. CONSULT WITH YOUR MCD REP.

6. RAIN CAP NOT REQUIRED.



ROOF PENETRATION
DETAIL



STACK INSTALLATION
DETAIL

Matthews CREMATION DIVISION
2045 Sprint Boulevard
Apopka, Florida 32703
USA

ENER-TEK IV

STACK DETAILS, CLEARANCES & INSTALLATION INSTRUCTIONS. REFRACTORY STACK DETAIL

DATE: 08-18-05	SCALE: 1/2"=1'
DRAWN: JG	PLOT SCALE: 1:24
APRVD:	SHEET: 2 OF: 2
DWG FILE: E-T IV-MarketingStackRefS2R3	
DWG #: 0000197	

SPECIFICATIONS - Ener-Tek

1.	Equipment Type	IE43-ET
	A. Underwriters Laboratories Listing No.	MH14647
2.	Dimensions	
	A. Footprint	12' – 4" x 7' – 4"
	B. Maximum Length	13' - 2½"
	C. Maximum Width	8' -7"
	D. Maximum Height	9' - 6¾"
	E. Chamber Loading Opening	33" H x 36" W (into chamber)
3.	Weight	36,000 lbs.
4.	Utility/Air Requirements	
	A. Gross Gas Input, Natural or LP Gas	2.7 million BTU/hr. maximum
	Running Gas Pressure, Natural Gas	7 inches w.c. or greater
	Running Gas Pressure, LP Gas	11 inches w.c. or greater
	B. Electrical Supply	230 volt, 3Ø or 1Ø, 60 hz (other available)
	C. Air Supply	3,000 cfm
5.	Incineration Capacity	250 lbs./hr.
6.	Typical Loading Capacity of Waste Types	
	A. Type 4 Material	750 lbs.
7.	Construction and Safety Standards	Incineration Institute of America, Underwriters Laboratories, Canadian Standards Association
8.	Steel Structure Construction	
	A. Frame	2" square tubing
	B. Front/Rear Plates	3/8" plate
	C. Floor Plates	3/16" plate
	D. Outer Side Casing	12 gauge plate
	E. Inner Side Casing	12 gauge plate
9.	Stack Construction (3 wall)	
	A. Inner Wall	12 gauge type 304 s.s., welded seams
	B. Middle Wall	2" insulating block
	C. Outer Wall	22 gauge galvanized steel, screwed seams
10.	Draft Nozzle Construction	Schedule 40 type 316 s.s., welded connections
11.	Main Chamber Door Construction	
	A. Steel Shell	3/16" steel, welded with reinforcement
	B. Outer Refractory	1" insulating block
	C. Inner Refractory	4½" insulating firebrick
12.	Primary Chamber Wall Construction	
	A. Outer Casing Wall	12 gauge plate
	B. Inner Frame/Air Compartment	2" air compartment

SPECIFICATIONS - Ener-Tek

C. Inner Casing Wall ..... 12 gauge plate
D. Outer Refractory Wall ..... 5" insulating block (minimum)
E. Inner Refractory Wall ..... 4½" firebrick

13. Secondary Chamber Wall Construction
A. Outer Casing Wall ..... 12 gauge plate
B. Inner Frame/Air Compartment ..... 2" air compartment
C. Inner Casing Wall ..... 12 gauge plate
D. Outer Refractory Wall ..... 6" insulating block
E. Inner Refractory Wall ..... 4½" firebrick

14. Refractory Temperature Ratings
A. Standard Firebrick ..... 3,100° F.
B. Insulating Firebrick ..... 2,600° F.
C. Castable Refractory (Hearth) ..... 2,550° F.
D. Castable Refractory ..... 2,550° F.
E. Insulating Block ..... 1,900° F.
F. Bonding Mortar ..... 3,200° F.

15. Chamber Volumes (not including external flues, stacks or chimneys)
A. Primary Chamber ..... 82 cubic feet
B. Secondary Chamber ..... 125 cubic feet

16. Emission Control Features
A. Secondary Chamber with Afterburner ..... Included
B. Opacity Monitor and Controller with Visual and Audible Alarms ..... Included
C. Auxiliary Air Control System ..... Included
D. Microprocessor Temperature Control System .... Included

17. Operating Temperatures
A. Primary Chamber ..... 1,400° F. – 2.000° F.
B. Secondary Chamber ..... 1,400° F. - 1,800° F. (as required)

18. Secondary Chamber Retention Time
A. Type 4 Material ..... 250 lbs./hr.
Retention Time ..... > 1 second

19. Ash Removal ..... Door functions as a heat shield. Sweep out beneath rear door into hopper which fills collection pan.

20. Safety Interlocks
A. High Gas Pressure ..... Optional
B. Low Gas Pressure ..... Optional
C. Blower Air Pressure ..... Included
D. Door Position ..... Included
E. Opacity ..... Included
F. Motor Starter Function ..... Included
G. Chamber Temperature ..... Included

SPECIFICATIONS - Ener-Tek

H. Motor Overload ..... Included
I. Flame Quality ..... Included
J. Burner Safe Start ..... Included

22. Burner Description ..... The nozzle mix burners used on this cremation equipment are industrial quality and designed for incinerator use.

23. Ultraviolet Flame Detection ..... Ultraviolet flame detection has proven to be the most reliable means of flame safety. The system is completely sealed in a quartz capsule to eliminate problems, caused by moisture and dust created in the cremation process, which effect flame rod detectors.

24. Operating Panel Indicating Lights
A. Safe Run ..... Included
B. Door Closed ..... Included
C. Pollution Alarm ..... Included
D. Afterburner On (Secondary Burner) ..... Included
E. Cremation Burner On (2) ..... Included
F. Temperature Control ..... Included
G. Afterburner (Secondary Burner) Reset ..... Included
H. Cremation Burners Reset (2) ..... Included
I. Hearth Air ..... Included
J. Throat Air ..... Included

25. Automatic Timer Functions
A. Master Cycle ..... Included
B. Afterburner (Secondary Burner) ..... Included
C. Cremation Burner (2) ..... Included
D. Hearth Air ..... Included
E. Throat Air ..... Included
F. Pollution Monitoring ..... Included
G. Afterburner (Secondary Burner) Prepurge ..... Included
H. Cremation Burner Prepurge (2) ..... Included
I. Cool Down ..... Included

26. Exterior Finish
A. Primer ..... 2 coats rust inhibiting
B. Finish ..... 2 coats textured finish

27. Start-Up and Training ..... Startup of cremation equipment and training of operators to properly operate and maintain the equipment is performed on-site under actual operating conditions. Included is a comprehensive owner's manual, with details on the equipment, its components and proper operation.

SPECIFICATIONS - Ener-Tek

28. Environmental Submittals..... Complete technical portion of state environmental permits. Engineering calculations, technical data, existing stack test results and equipment blueprints provided.

CREMATOR MASS BALANCE

Industrial Equipment & Engineering Company
Model IE43-ET (Ener-Tek) Cremation Incinerator

THESE CALCULATIONS HAVE BEEN PREPARED TO EVALUATE THE COMBUSTION PROCESS IN THE MODEL IE43-ET (Ener-Tek) CREMATORY INCINERATOR.

THE INCINERATOR INSTITUTE OF AMERICA HAS PUBLISHED THE FOLLOWING SPECIFICATIONS COVERING AVERAGE WASTES.

WASTE TYPE	TYPE 0	TYPE 4
BTU PER POUND	8500	1000
POUND ASH PER POUND WASTE	0.05	0.05
POUND MOISTURE PER POUND WASTE	0.1	0.85
POUND COMBUSTIBLES PER POUND WASTE	0.85	0.1
HOURLY CONSUMPTION OF WASTE (LBS)	10	240

1. MASS OF PRODUCTS OF COMBUSTION FROM CONTAINER

A. COMBUSTION AIR

$$\frac{8500 \text{ BTU/LB}}{100 \text{ BTU/CF OF AIR*}} \times 0.075 \text{ LB/CF OF AIR} = 6.38 \text{ LB/LB BURNED}$$

B. COMBUSTIBLES AND WATER VAPOR

FROM CHART ABOVE = 0.95 LB/LB BURNED

C. TOTAL FLUE PRODUCT MASS PER LB BURNED

= 7.33 LB/LB BURNED

2. MASS OF PRODUCTS OF COMBUSTION FROM BODY

A. COMBUSTION AIR

$$\frac{1000 \text{ BTU/LB}}{100 \text{ BTU/CF OF AIR*}} \times 0.075 \text{ LB/CF OF AIR} = 0.75 \text{ LB/LB BURNED}$$

B. COMBUSTIBLES AND WATER VAPOR

FROM CHART ABOVE = 0.95 LB/LB BURNED

C. TOTAL FLUE PRODUCT MASS PER LB BURNED

= 1.70 LB/LB BURNED

SPECIFICATIONS	
PRIMARY BURNER FUEL CONSUMPTION (MMBTU/HR)	0.5
SECONDARY BURNER FUEL CONSUMPTION (MMBTU/HR)	0.9
ADDITIONAL SECONDARY AIR SUPPLIED (CFM)	200
SEC. CHAMBER OPERATING TEMPERATURE (°F)	**1800**
SECONDARY CHAMBER VOLUME (CU. FT)	125
SEC. CHAMB. CROSS-SECTIONAL AREA (SQ. FT)	2.44
FLAME PORT AREA (SQ. FT)	2.95
MIXING BAFFLES AREA (SQ. FT)	1.36

*AIR AT STANDARD CONDITIONS

3. TOTAL FLUE PRODUCTS

A. MAXIMUM PRIMARY BURNER GAS USAGE

500000 BTU/HR x 4.5E-05 LBS/BTU = 22.5 LBS/HR

B. COMBUSTION AIR FOR PRIMARY BURNER

$$\frac{500000 \text{ BTU/HR}}{100 \text{ BTU/CF AIR}} \times \frac{1}{\text{Burner}} \times 0.075 \text{ LB/CF AIR} = 375 \text{ LBS/HR}$$

C. MAXIMUM SECONDARY BURNER GAS USAGE

900000 BTU/HR x 4.5E-05 LBS/BTU = 41 LBS/HOUR

D. COMBUSTION AIR FOR SECONDARY BURNER

$$\frac{900000 \text{ BTU/HR}}{100 \text{ BTU/CF AIR}} \times \frac{1}{\text{Burner}} \times 0.075 \text{ LB/CF AIR} = 675 \text{ LBS/HOUR}$$

E. PRODUCTS FROM TYPE 0 WASTE (CONTAINER)

7.33 LBS/LB BURNED x 10 LB/HR BURN RATE = 73 LBS/HOUR

F. PRODUCTS FROM TYPE 4 WASTE (TISSUE)

1.70 LBS/LB WASTE x 240 LB/HR BURN RATE = 408 LBS/HOUR

G. ADDITIONAL SECONDARY CHAMBER COMBUSTION AIR (THROAT AIR)

12000 CF/HR* x 0.075 LB/CF AIR = 900 LBS/HOUR

H. TOTAL FLUE PRODUCTS = 2494 LBS/HOUR

2. VELOCITY AND TIME CALCULATIONS

A. SCFM CALCULATION (PRODUCTS ASSUMED TO HAVE DENSITY CLOSE TO AIR)

$$2494 \text{ LBS/HR} \times \frac{13.35 \text{ STD. CU. FT/LB}}{60 \text{ MIN/HR}} = 555 \text{ SCFM}$$

B. TOTAL PRODUCTS ACFM @ 1800 °F

$$\frac{2260 \text{ °RANKINE}}{530 \text{ °RANKINE}} \times 555.0 \text{ CFM} = 2366 \text{ ACFM}$$

C. RETENTION TIME

$$\frac{125 \text{ CU. FT}}{2366 \text{ ACFM}} \times \frac{60 \text{ SECONDS}}{1 \text{ MINUTE}} = \mathbf{3.17\ SECONDS}$$

D. VELOCITY IN FLAME PORT

$$\frac{2366 \text{ ACFM}}{2.95 \text{ SQ. FT}} \times \frac{1 \text{ MINUTE}}{60 \text{ SECONDS}} = 13.4 \text{ FEET/SECOND}$$

E. VELOCITY AT MIXING BAFFLES

$$\frac{2366 \text{ ACFM}}{1.36 \text{ SQ. FT}} \times \frac{1 \text{ MINUTE}}{60 \text{ SECONDS}} = 29.0 \text{ FEET/SECOND}$$

F. VELOCITY IN SECONDARY CHAMBER

$$\frac{2366 \text{ ACFM}}{2.44 \text{ SQ. FT}} \times \frac{1 \text{ MINUTE}}{60 \text{ SECONDS}} = 16.2 \text{ FEET/SECOND}$$

PROJECT PARTICIPANTS AND CERTIFICATION

QUALITY VAULTS
IE43-ET HUMAN CREMATORY
Ocoee, Florida

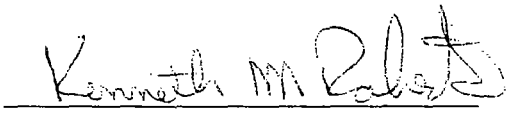
March 15, 2002

Project Participants:

Byron Nelson Kenneth M. Roberts Mark S. Gierke Terry Wilson Glen Jackson	Conducted the field testing.
Kenneth M. Roberts	Performed the visible emissions evaluation.
Kenneth M. Roberts Mark S. Gierke	Performed laboratory analyses.
Kenneth M. Roberts	Computed test results.
Kenneth M. Roberts	Prepared the final test report.

Certification:

I certify that to my knowledge all data submitted in this report is true and correct.



Kenneth M. Roberts, QEP

EMISSIONS TEST SUMMARY

Company: QUALITY VAULTS
Source: IE43-ET HUMAN CREMATORY

	Run 1	Run 2	Run 3	
Date of Run	3/15/02	3/15/02	3/15/02	
Start Time (24-hr. clock)	0941	1258	1536	
End Time (24-hr. clock)	1046	1400	1638	
Vol. Dry Gas Sampled Meter Cond. (DCF)	39.900	40.380	36.919	
Gas Meter Calibration Factor	1.000	1.000	1.000	
Barometric Pressure at Barom. (in. Hg.)	30.14	30.14	30.18	
Elev. Diff. Manom. to Barom. (ft.)	0	0	0	
Vol. Gas Sampled Std. Cond. (DSCF)	38.950	38.504	35.131	
Vol. Liquid Collected Std. Cond. (SCF)	3.046	4.144	4.064	
Moisture in Stack Gas (% Vol.)	7.3	9.7	10.4	
Molecular Weight Dry Stack Gas	29.81	29.62	29.58	
Molecular Weight Wet Stack Gas	28.96	28.49	28.38	
Stack Gas Static Press. (in. H2O gauge)	-0.02	-0.03	-0.04	
Stack Gas Static Press. (in. Hg. abs.)	30.14	30.14	30.18	
Average Square Root Velocity Head	0.180	0.186	0.166	
Average Orifice Differential (in. H2O)	1.179	1.216	0.953	
Average Gas Meter Temperature (°F)	86.4	99.5	101.0	
Average Stack Gas Temperature (°F)	1196.5	1246.0	1223.9	
Pitot Tube Coefficient	0.84	0.84	0.84	
Stack Gas Vel. Stack Cond. (ft./sec.)	17.85	18.83	16.73	
Effective Stack Area (sq. ft.)	2.18	2.18	2.18	
Stack Gas Flow Rate Std. Cond. (DSCFM)	696	694	621	
Stack Gas Flow Rate Stack Cond. (ACFM)	2,336	2,465	2,189	
Net Time of Run (min.)	60	60	60	
Nozzle Diameter (in.)	0.593	0.593	0.593	
Percent Isokinetic	106.2	105.3	107.4	
Oxygen (%)	11.3	12.1	11.5	
Particulate Collected (mg.)	42.4	34.4	49.8	
				Average
Particulate Emissions (gr./DSCF)	0.017	0.014	0.022	0.017
Particulate Emissions (gr./DSCF @ 7% O2)	0.024	0.022	0.032	0.026
Particulate Emissions (lb./hr.)	0.100	0.082	0.116	0.099
CO Emissions (ppm)	5.08	4.17	5.25	4.83
CO Emissions (ppm @ 7% O2)	7.33	6.56	7.74	7.21
CO Emissions (lb./hr.)	0.015	0.013	0.014	0.014
NOx Emissions (ppm)	130.3	302.3	190.2	207.6
NOx Emissions (lb./hr.)	0.65	1.50	0.85	1.00
VOC Emissions (ppm)	8.00	0.38	1.58	3.32
VOC Emissions (lb./hr.)	0.041	0.002	0.008	0.017
SO2 Collected (mg)	12.0	56.5	36.0	34.8
SO2 Emissions (lb./hr.)	0.057	0.134	0.084	0.092
HCL Collected (mg)	0.1	4.2	3.3	2.5
HCL Emissions (lb./hr.)	0.002	0.094	0.067	0.054

Note: Standard conditions 68°F, 29.92 in. Hg

HCl EMISSIONS TEST SUMMARY

Company: QUALITY VAULTS
Source: IE43-ET HUMAN CREMATORY

	Run 1	Run 2	Run 3
Date of Run	03/15/2002	03/15/2002	03/15/2002
Start Time (24-hr. clock)	0940	1255	1535
End Time (24-hr. clock)	1045	1400	1639
Vol. Dry Gas Sampled Meter Cond. (DL)	120.890	121.480	120.340
Gas Meter Calibration Factor	0.980	0.980	0.980
Barometric Pressure at Barom. (in. Hg.)	30.14	30.14	30.18
Moisture in Stack Gas (% vol.)	7.3	9.7	10.4
Elev. Diff. Manom. to Barom. (ft.)	0	0	0
Vol. Gas Sampled Std. Cond. (DSCF)	4.15822	4.11255	4.03851
Average Gas Meter Temperature (`F)	75.2	83.8	89.3
Stack Gas Flowrate (DSCFM)	696	694	621
Net Time of Run (min.)	60	60	60
HCl Collected (mg)	0.1	4.2	3.3
HCl Emissions (lb./hr.)	0.0022	0.0937	0.0671
Avg. HCl Emissions (lb./hr.)	0.0544		

Note: Standard conditions 68`F, 29.92 in. Hg

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

1204 North Wheeler Street, Plant City, Florida 33566 (813)752-5014

VISIBLE EMISSIONS EVALUATION

COMPANY: Quality Vaults

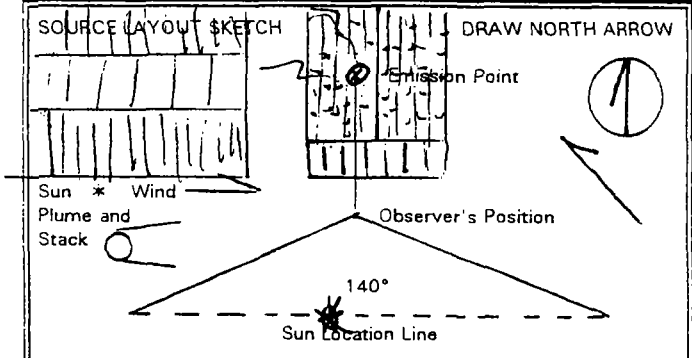
UNIT: Crematory Incinerator

ADDRESS: Bluford Ave.

Ocoee, FL

PERMIT NO.	COMPLIANCE? YES ☒ NO ☐
AIRS NO.	EU NO. 001
PROCESS RATE Cont = 55lb / Body = 210	PERMITTED RATE Adult Size Human Body
PROCESS EQUIPMENT: IER Enertex model Incinerator	
CONTROL EQUIPMENT: 1600° Afterburner	
OPERATING MODE Propane ~~Natural Gas Fuel~~	AMBIENT TEMP. (°F) START 82° STOP ✓
HEIGHT ABOVE GROUND LEVEL START ~25' STOP ✓	HEIGHT REL. TO OBSERVER START ~25' STOP ✓
DISTANCE FROM OBSERVER START ~~~100'~~ STOP ✓	DIRECTION FROM OBSERVER START 0° STOP ✓
EMISSION COLOR None	PLUME TYPE NA CONTIN. ☐ INTERMITTENT ☐
WATER DROPLETS PRESENT NO ☒ YES ☐	IS WATER DROPLET PLUME ATTACHED ☐ DETACHED ☐ NA
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START Stack Exit STOP ✓	
DESCRIBE BACKGROUND START Sky / Trees STOP ✓	
BACKGROUND COLOR START Blue / Green STOP ✓	SKY CONDITIONS START Clear STOP ✓
WIND SPEED (MPH) START 2-5 STOP ✓	WIND DIRECTION START SE STOP ✓
AVERAGE OPACITY FOR HIGHEST PERIOD	RANGE OF OPAC. READINGS MIN. MAX.

SOURCE LAYOUT SKETCH



COMMENTS

OBSERVATION DATE: 3/15/02 START TIME: 12 55 STOP TIME: 1355

SEC MIN	0	15	30	45	SEC MIN	0	15	30	45
0	0	0	0	0	30	0	0	0	0
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0

Observer: Kenneth M. Roberts

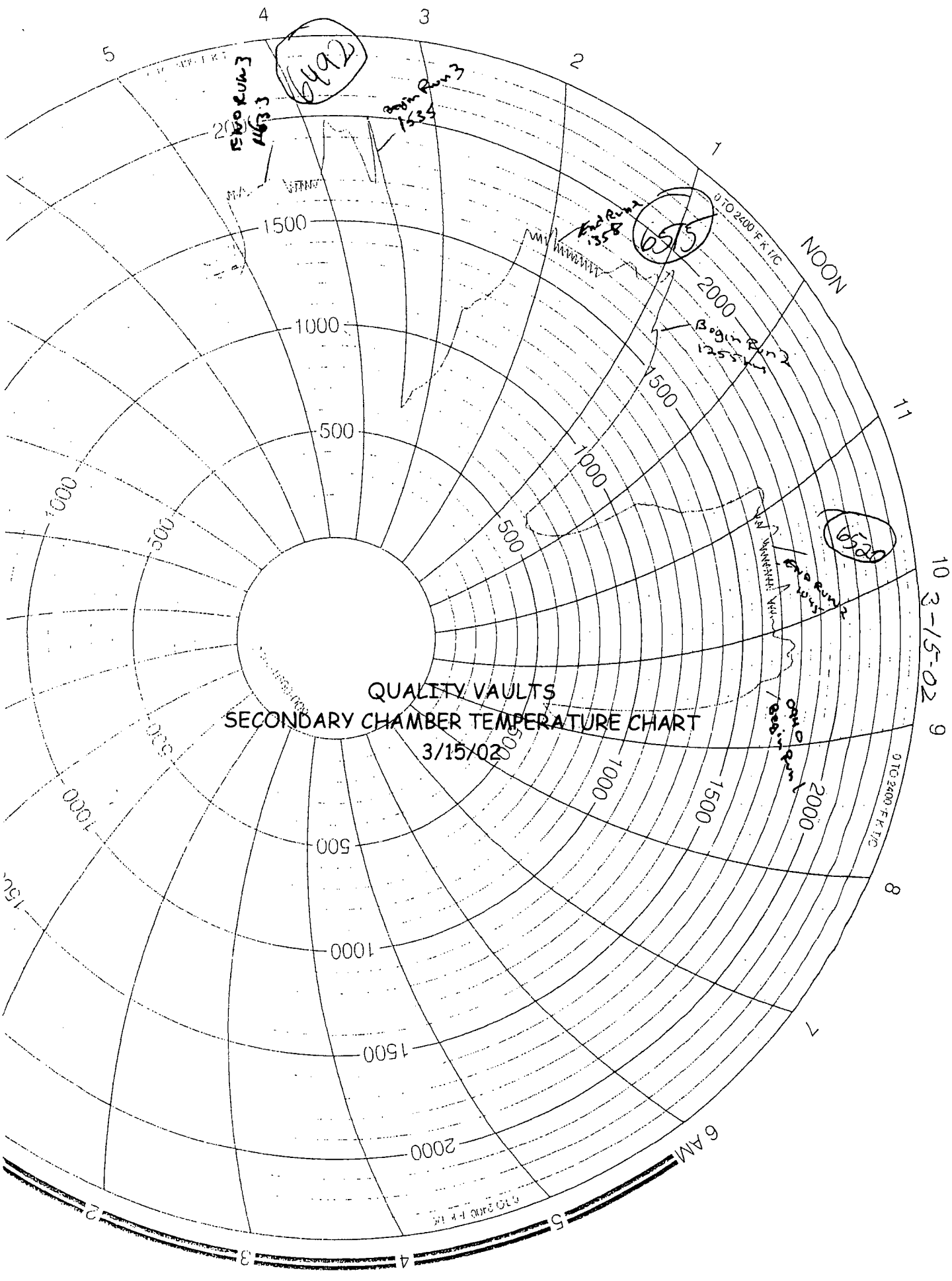
Certified by: FDEP Certified at: Tampa

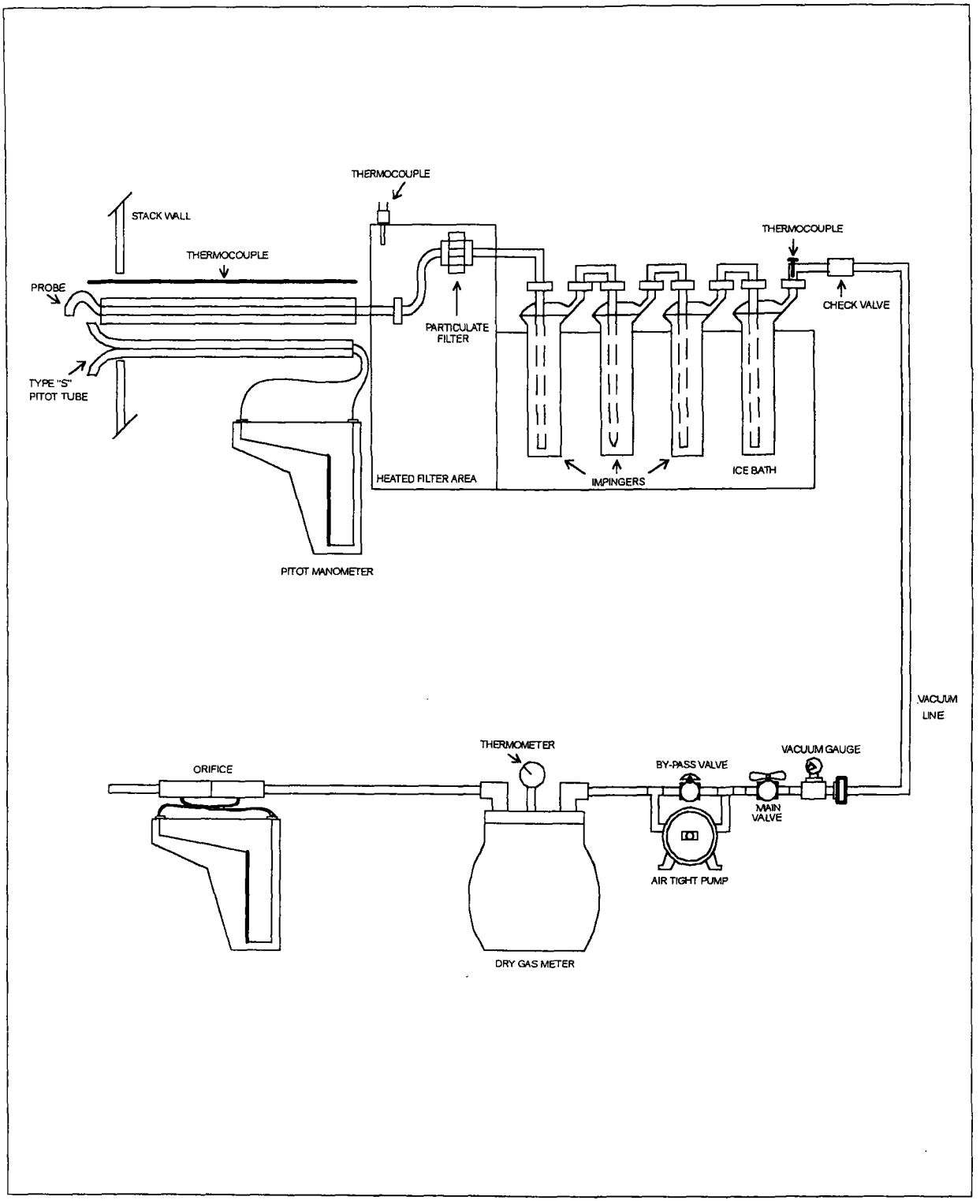
Date Certified: 2/20/02 Exp. Date: 8/20/02

I certify that all data provided to the person conducting the test was true and correct to the best of my knowledge:

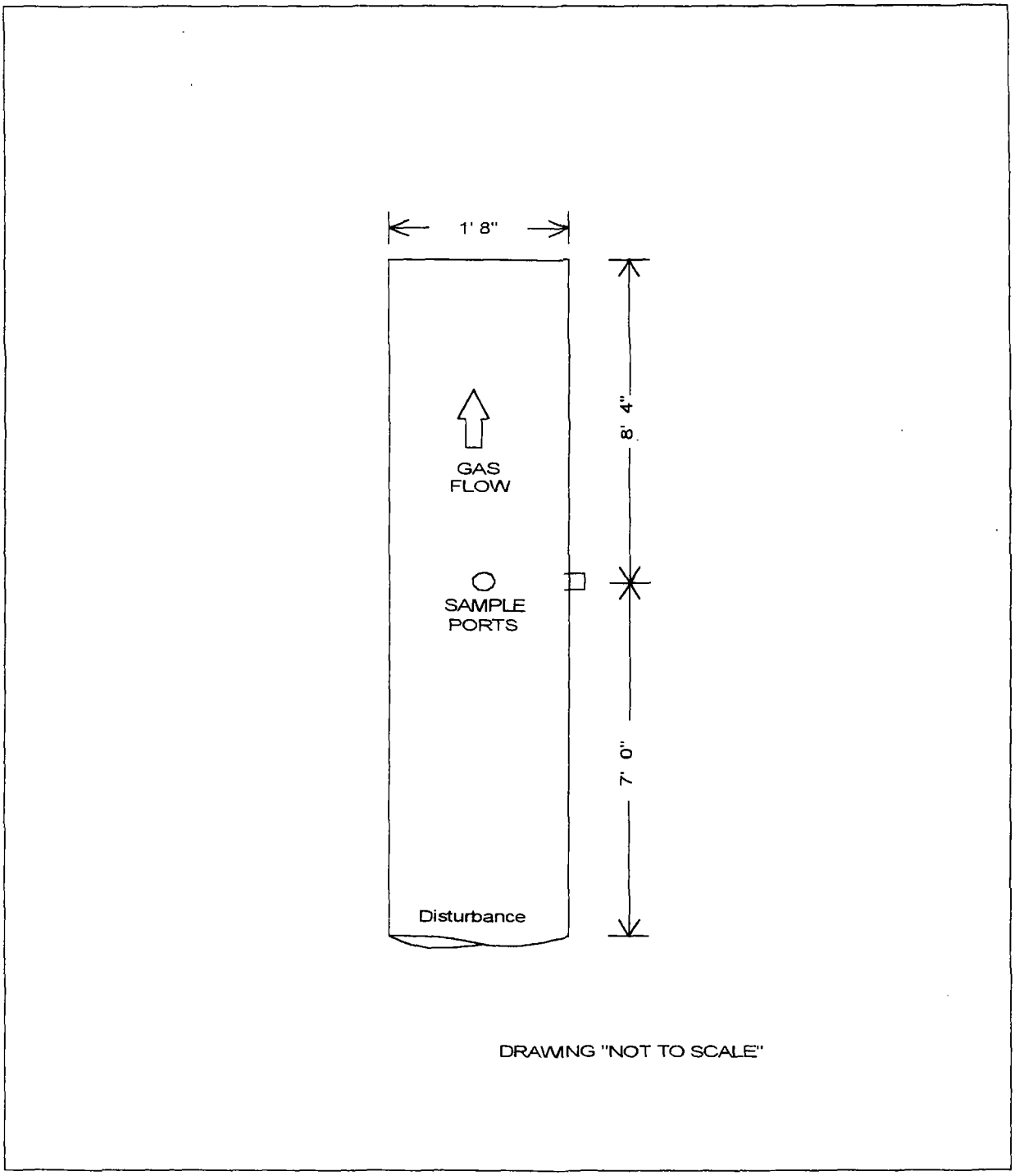
Signature:

Title:


QUALITY VAULTS
SECONDARY CHAMBER TEMPERATURE CHART
3/15/02
NOON
6 AM
0 TO 2400 °F X 1/C
3-15-02
End Run 3
1534
Begin Run 3
End Run 2
1358
Begin Run 2
1255
End Run 1
Begin Run 1
6492
6515
6520



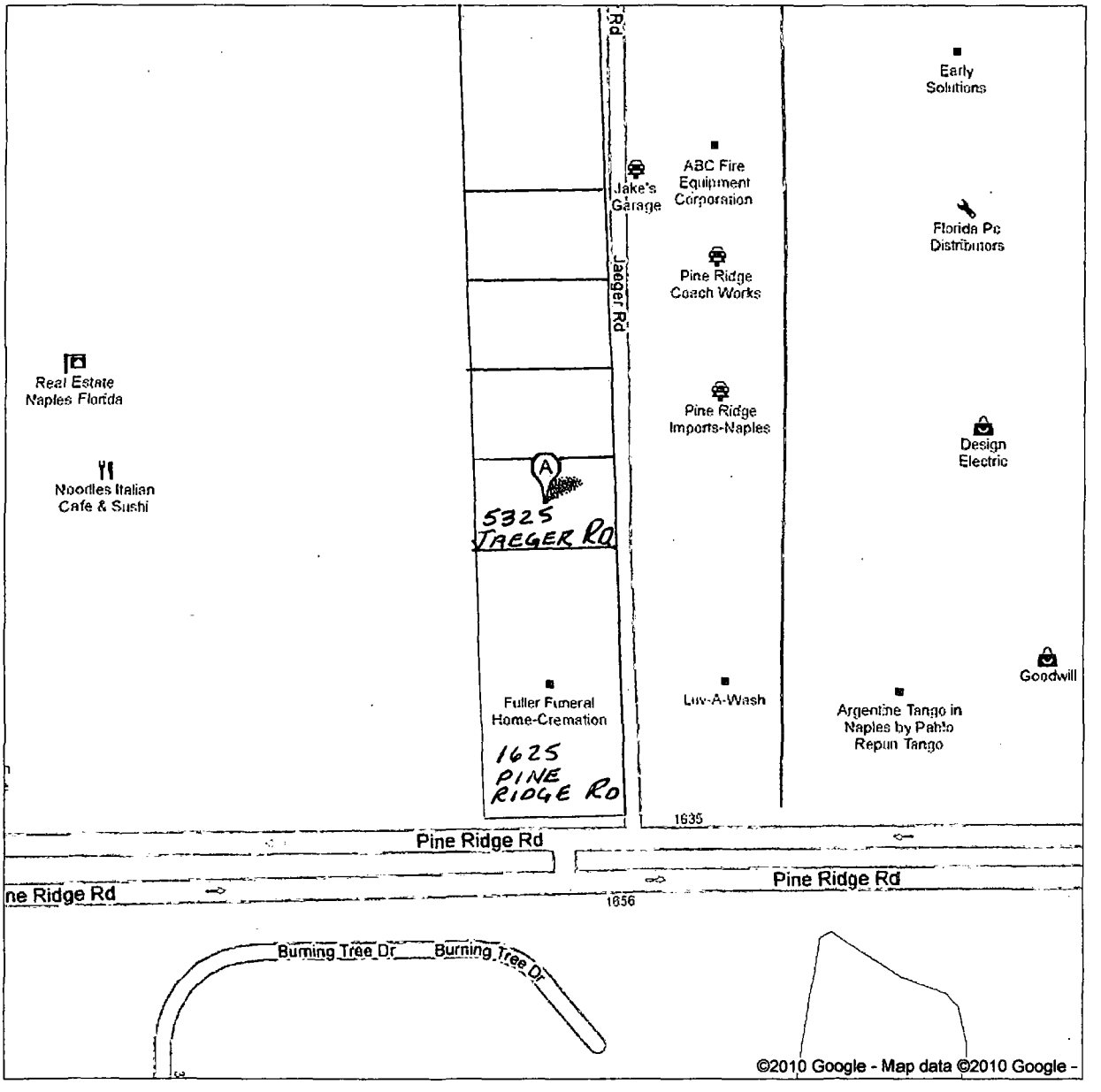
Method 5 Sampling Train.



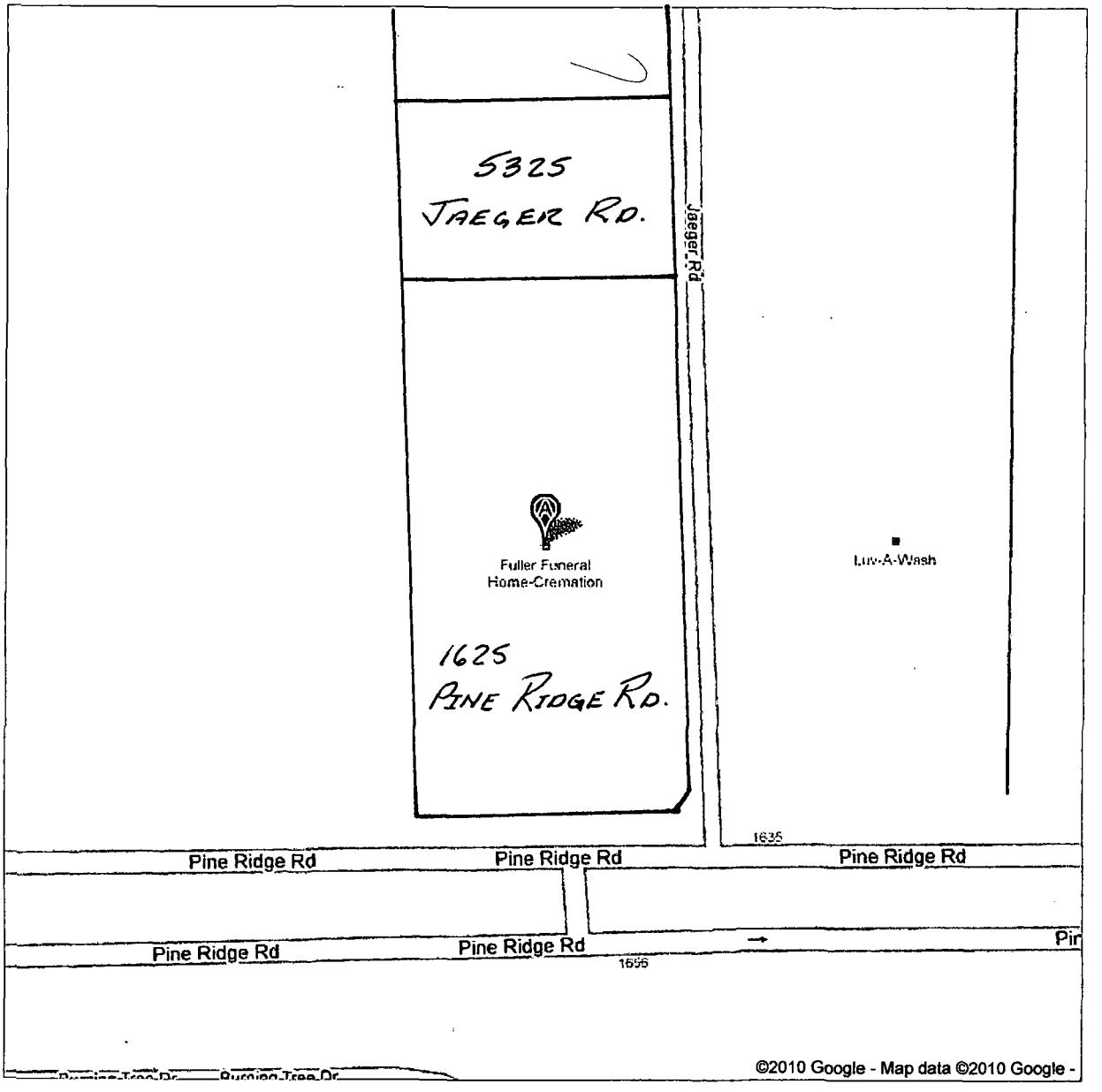
Stack dimensions and sample port locations, Quality Vaults, human crematory, Ocoee, Florida.

Google maps Address **5325 Jaeger Rd**
Naples, FL 34109

Get Google Maps on your phone
Text the word "GMAPS" to 466453



Google maps Address 1625 Pine Ridge Rd
Naples, FL 34109



Matthews INTERNATIONAL

Cremation Division

June 9, 2010

Fuller Funeral Home
1625 Pine Ridge Road
Naples, FL 34109

Dear Mr. Fuller,

Enclosed are your permit application forms for the air general permit registration for your new cremator. Please fill in the highlighted areas and make 1 copies of the entire packet. Once completed you can keep a copy for your records and send the original signed copy to the following address (along with a $100 check payable to Florida Department of Environmental Protection):

FDEP Receipts
P.O. Box 3070
Tallahassee, FL 32803-7555
Attn: Dick Dibble

Give me a call if you have questions. When you finally receive the permit please fax or mail us a copy so we can put it in your file.

Sincerely,

Jarrod Gogel

Jarrod Gogel
Engineering Aide

2045 Sprint Boulevard • Apopka, Florida 32703 • 800-327-2831 • 407-886-5533 • Fax: 407-886-5990

Fuller Funeral Home
1685 Pine Ridge Road
Naples FL 34109

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FDEP Receipts
P.O Box 3070
Tallahassee. FL 32303-7555

Attn: Dick Dibble