

F&A RECEIPT # 524639  
DATE AUG 30 2011 RECEIVED

ANIMAL CREMATORY  
AIR GENERAL PERMIT REGISTRATION FORM  
SEP 06 2011  
DIVISION OF AIR  
RESOURCE MANAGEMENT

**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)

0810234-001

**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.)

SW Myers Enterprises d.b.a. Sarasota 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.)

Sarasota Pet Crematory

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

Street Address: 1410 Commerce Blvd. Unit L

City: Sarasota

County: Manatee

Zip Code: 34243 - 5029

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

October - December 2011



### 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. (Attachment 1 – Measured retention time)
- 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.

The facility plans to install an animal crematory manufactured by U.S. Cremation Equipment model US 75/300. No serial number is available at the time of the application. The retention time of the US 75/300 animal crematory is greater than 1 second at 1800F. The US 75/300 is a multi-chamber unit having an average 75 lbs/hr animal (approximately 1,000 Btu/lb) cremation rate. The primary chamber burner is rated at 500,000 Btu/hr, and the secondary chamber burner is rated at 1,000,000 Btu/hr, for a total of 1,500,000 Btu/hr. The equipment is fired with natural gas. The design also includes fully automatic PLC based controls, independent fuel/air systems, preheated combustion air, secondary chamber temperature monitor an recorder, primary burner temperature interlock (prevents primary burner from firing prior to the secondary chamber reaching it's set point temperature), UV continuous scanning flame detectors on burners, and an opacity sensor which can temporarily suspends operation of the primary chamber burner. . In Attachment 1 we have included a compliance test report for the US 75/300 which includes the measured retention time for this crematory.

In Attachment 2 the US 75/300 specifications are attached.

Emissions calculations are included in Attachment 3.



# *Arlington Environmental Services, Inc.*

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605 SW Park Street, Suite 209 ~ Okeechobee, Florida 34974  
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April 1, 2011

U.S. Cremation Equipment  
598 South Northlake Boulevard, Suite 1016  
Altamonte Springs, FL 32701

**RE: 115015AQB – Graceland Fairlawn Funeral Home  
Emission Testing Report  
Make: US Cremation Equipment  
Model: 75/300**

To Whom It May Concern:

Emission testing for Particulate, Visible, and Carbon Monoxide, EPA Methods 1-5, 9, and 10, was conducted on February 25, 2011 on a surrogate unit as utilized at the above referenced facility. Upon request of the manufacturer the results from Methods 1-5, and 10 have been corrected to twelve percent (12%) Carbon Dioxide and fifty percent (50%) Excess Air. In addition the results were corrected to seven percent (7%) Oxygen. These results are presented in the attached Emissions Report.

Sincerely,

Noah A. Handley, P.E.  
Vice President, Principal Engineer,  
Arlington Environmental Services, Inc.

**Source Test Report for  
Particulate, Visible, and  
Carbon Monoxide Emissions**

**EPA Methods 1-5, 9, and 10**

**Report 3494-S**

Conducted:  
**February 25, 2011**

Prepared for:  
**US Cremation Equipment  
Model 75/300  
Illinois Identification No: 115015AQB**



Prepared by:  
**Arlington Environmental Services, Inc.  
Post Office Box 657  
Okeechobee, FL 34973  
(863) 467-0555**

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## 1.0 Introduction

Graceland Fairlawn Funeral Home operates an US Cremation Equipment Model 75/300 at their Animal Crematory located at 2091 North Oakland Avenue in Decatur, Illinois. On February 25, 2011, tests for particulate, visible, and carbon monoxide emissions were performed on the exhaust stack servicing the after burner system of a surrogate unit of the same make and model located at the US Cremation Equipment manufacturing facility in Lakeland, Florida.

The tests were performed in order to demonstrate compliance with Permit Number: 115015AQB issued by Illinois Environmental Protection Agency. During the compliance monitoring, only animal remains were processed to determine compliance with the standards for Particulate Matter, Visible Emissions, and Carbon Monoxide.

During the compliance monitoring period, records of the plant processing data were maintained by Luis Llorens, Project Manager, and are presented in Appendix C. In addition the EPA Method 9 testing was performed by Luis del Pino, a copy of their certification is included in Attachment F, Project Participants.

The results of these tests verify compliance with the above referenced permit and the Code of Federal Regulations for crematories.

## 2.0 Certification of Test Results

Permitted Facility: Graceland Fairlawn Funeral Home  
US Cremation Equipment, Model 75/300  
2091 North Oakland Avenue  
Decatur, Illinois 62525

Testing Location: US Cremation Equipment  
Model 75/300  
Located at: 305 Winston Creek Parkway  
Lakeland, FL 33810

Process Type: Animal Crematory

Rated Capacity: 75 lbs/hr

Report: 3494-S

Date: February 25, 2011

Allowable Particulate Emissions - 0.1 gr/dscf at 12% Carbon Dioxide (CO<sub>2</sub>)  
Actual Particulate Emissions - 0.0094 gr/dscf at 12% CO<sub>2</sub>

Allowable Visible Emissions - 20%  
Actual Visible Emissions - 0.0% (Highest Six Minute Average During All 3 Runs)

Allowable Carbon Monoxide Emissions - 500 ppm corrected to 50% Excess Air  
Actual Carbon Monoxide Emissions - 28.93 ppm corrected to 50% Excess Air

All testing and analysis were performed in accordance with the Florida Department of Environmental Protection and the Code of Federal Regulations, 40, part 60.

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



---

**William D. Arlington**  
Project Director



### **3.0 Allowable Emission Determination**

The allowable emissions were determined in accordance with the code of federal regulations 40, part 60.926.401.

Substantiating data and calculations are presented in the Appendix D.

### **4.0 Cyclonic Flow Determination**

Due to the configuration of the system, cyclonic flow was considered to be non-existent at the sampling site.

5.0 Summary of Results  
 US Cremation Equipment  
 Model 75/300  
 Report 3494-S

	Run 1	Run 2	Run 3	Average
Date	2/25/2011	2/25/2011	2/25/2011	
Start Time	13:28	15:15	16:51	
Stop Time	14:33	16:18	17:54	
Process Rate (tons/hr.)	75	69	75	73
Particulate Emission Rate (gr./dscf @ 12% CO <sub>2</sub> )	0.0129	0.0070	0.0083	0.0094
Allowable Particulate Emission Rate (gr./dscf @ 12% CO <sub>2</sub> )	0.1	0.1	0.1	0.1
Visible Emission Rate (highest six minute average)	0.0%	0.0%	0.0%	0.0%
Allowable Visible Emission Rate (highest six minute average)	20%	20%	20%	20%
Carbon Monoxide Emission Rate (PPM @ 50% Excess Air)	22.93	30.12	33.83	28.96
Allowable Carbon Monoxide Emission Rate (ppm @ 50% Excess Air)	500	500	500	500

6.0 Particulate Emission Results  
 US Cremation Equipment  
 Model 75/300  
 Report 3494-S

	Run 1	Run 2	Run 3
Area (square feet)	1.53	1.53	1.53
Stack Pressure (inches Hg)	30.00	30.00	30.00
Meter Pressure (inches Hg)	30.12	30.14	30.15
Sample Volume (Std. Cu. Ft.)	43.208	45.925	48.157
Water Vapor (Cubic Feet)	3.89	3.79	4.95
Sample Moisture (percent)	8.26	7.62	9.32
Saturation Moisture (percent)	100.00	100.00	100.00
Molecular Weight (lbs/lb Mole wet)	28.38	28.43	28.28
Velocity (fpm)	1164	1192	1226
Volumetric Flow Rate (acfm)	1781	1824	1877
Volumetric Flow Rate (scfm)	536	555	582
Concentration (gr/dscf)	0.0049	0.0026	0.0032
Concentration Corrected to 7% O <sub>2</sub> (gr/dscf)	0.0106	0.0057	0.0069
Concentration Corrected to 12% CO <sub>2</sub> (gr/dscf)	0.0129	0.0070	0.0083
Mass Emission Rate (lbs./hr.)	0.02	0.01	0.02
Percent Isokinetic	96.40	99.04	98.98

**6.0 Visible Emission Results**

**US Cremation Equipment**

**Model 75/300**

**Report 3494-S**

	Run 1	Run 2	Run 3
Allowable Emission Rate (highest six minute average)	20%	20%	20%
Emission Rate (highest six minute average)	0.0%	0.0%	0.0%

**7.0 Carbon Monoxide Emission Results**  
**US Cremation Equipment**  
**Model 75/300**  
**Report 3494-S**

	Run1	Run 2	Run 3	Average
Date	2/25/2011	2/25/2011	2/25/2011	
Start Time	13:28	15:15	16:51	
Stop Time	14:33	16:18	17:54	
Percent Oxygen	14.53	14.59	14.38	
Percent Carbon Dioxide	4.56	4.43	4.73	
Carbon Monoxide (PPM )	11.00	14.35	16.57	
Carbon Monoxide Emissions Concentration Corrected to 7% O <sub>2</sub> (PPM)	24.00	31.60	35.34	30.32
Percent Excess Air	212.71	214.87	206.27	211.28
Carbon Monoxide Emissions Corrected to 50% Excess Air (PPM)	22.93	30.12	33.83	28.96
Carbon Monoxide Allowable Corrected to 50% Excess Air (PPM)	500	500	500	500

## **8.0. Overview of Field and Analytical Procedures**

### **8.1. EPA Method 1 - Sample and Velocity Traverses for Stationary Sources**

Principle - To aid in the representative measurement of pollutant emissions and/or total volumetric flow rate from a stationary source, a measurement site where the effluent stream is flowing in a known direction is selected and the cross-section of the stack is divided into a number of equal areas. A traverse point is then located within each of these equal areas. See Sampling Point Determination.

Applicability - This method is applicable to flowing gas streams in ducts, stacks and flues. This method cannot be used when: 1) flow is cyclonic or swirling 2) a stack is smaller than about 12 inches in diameter, or 0.071 cross-sectional area or 3) the measurement site is less than two stack or duct diameters downstream or less than a half diameters upstream from a flow disturbance. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A.

### **8.2. EPA Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate**

Principle - Type S Pitot Tube - The average gas velocity in a stack is determined from the gas density and from measurement of the average velocity head with a Type S pitot tube.

Applicability - This method is applicable for measurement of the average velocity of a gas stream and for quantifying gas flow.

This procedure is not applicable at measurement sites which fail to meet the criteria of Method 1. This method cannot be used for direct measurement in cyclonic or swirling gas streams. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A.

### **8.3. Method 3 - Gas Analysis for the EPA Determination of Dry Molecular Weight**

Principle - A gas sample is extracted from a stack by one of the following methods 1) Single-point grab sampling 2) single-point, integrated sampling or 3) multi-point, integrated sampling, the gas sample is analyzed for percent CO<sub>2</sub>; percent O<sub>2</sub>, and if necessary for CO. For dry molecular weight determination, either an Orsat or a Fyrite analyzer may be used for the analysis.

Applicability - This method is applicable for determining carbon dioxide and oxygen concentrations and dry molecular weight of a sample from a gas stream of a fossil fuel combustion process. The method may also be applicable to other processes where it has been determined that compounds other than CO<sub>2</sub>, O<sub>2</sub>, CO, and nitrogen are not present in concentrations sufficient to affect the results. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A.

### **8.4. EPA Method 4 - Determination of Moisture Content in Stack Gases**

Principle - A gas sample is extracted at a constant rate from the source; moisture is removed from the sample stream and determined either volumetrically or gravimetrically.

Applicability - This method is applicable for determining the moisture content of stack gas. There are two procedures given to determine the moisture. The procedure for the reference method to determine the moisture content was used to calculate the emission data. The reference method was conducted simultaneously with the pollutant emission measurement run, pollutant emission rate, etc. for the run is based upon the results of the reference method or its equivalent. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A.

### 8.5. EPA Method 5 - Determination of Particulate Emissions from Stationary Sources

Principle - Particulate matter is withdrawn isokinetically from the source and collected on a glass fiber filter maintained at a temperature in the range of 120 - 248° For such other temperature as specified by an applicable subpart of the standards or approved by the Administrator, U.S. Environmental Protection Agency, for a particular application. The particulate mass which includes any material that condenses at or above the filtration temperature is determined gravimetrically after removal of uncombined water.

Applicability - This method is applicable for the determination of particulate emissions from stationary sources. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A.

Diagram of EPA Method 5 Sampling Train

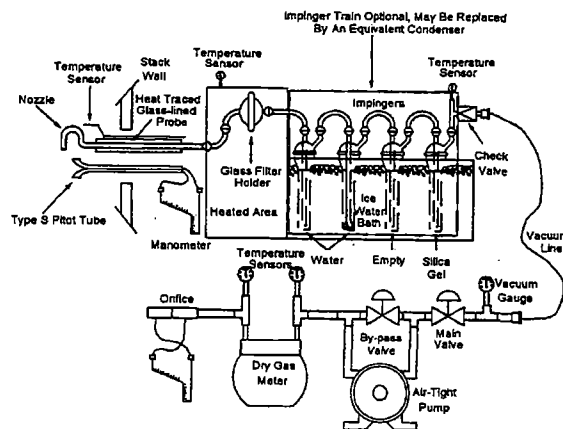


Figure F5-1. Particulate Sampling Train.

### 8.6. EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources

Principle - The opacity of emissions from stationary sources is determined visually by a qualified observer.

Applicability - This method is applicable for the determination of the opacity of emissions from stationary sources pursuant to 60.11(b) and for qualifying observers for visually determining the opacity of emissions.

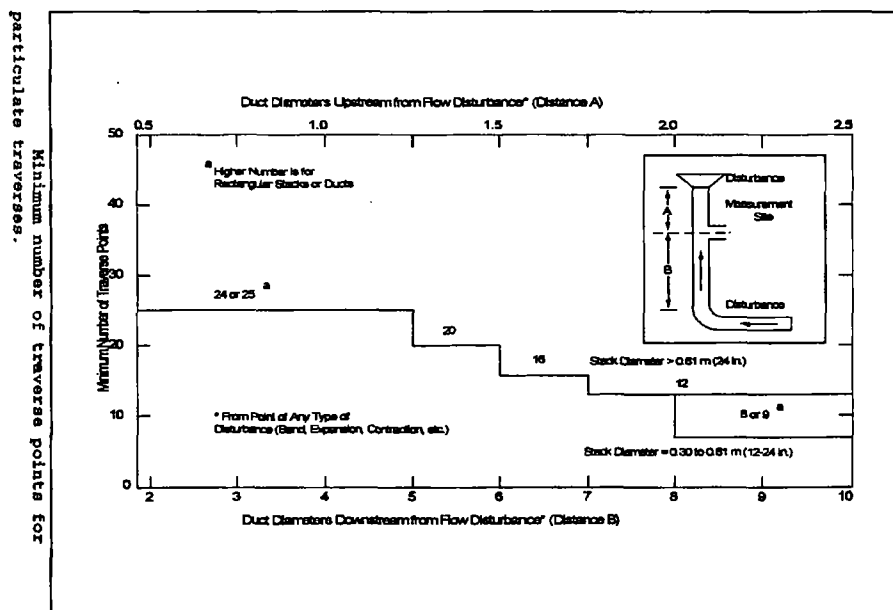
### 8.7. EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources

Principle - An integrated or continuous gas sample is extracted from a sampling point and analyzed for carbon monoxide (CO) content using a Luft-type non-dispersive infrared analyzer or equivalent.

Applicability - This method is applicable for the determination of carbon monoxide emissions from stationary sources only when specified by the test procedures for determining compliance with new source performance standards. The procedures in this method were utilized in its entirety according to the procedures outlined in 40 CFR Part 60, Appendix A

## 9.0 Sampling Point Determination

### Minimum Number of Sampling Points Per Particulate Traverse



#### Circular Stacks

The number of sampling points is selected according to the above diagram, with the number of points equaling the next higher multiple of four.

#### Rectangular Stacks

The number of sampling points is determined using the matrix below.

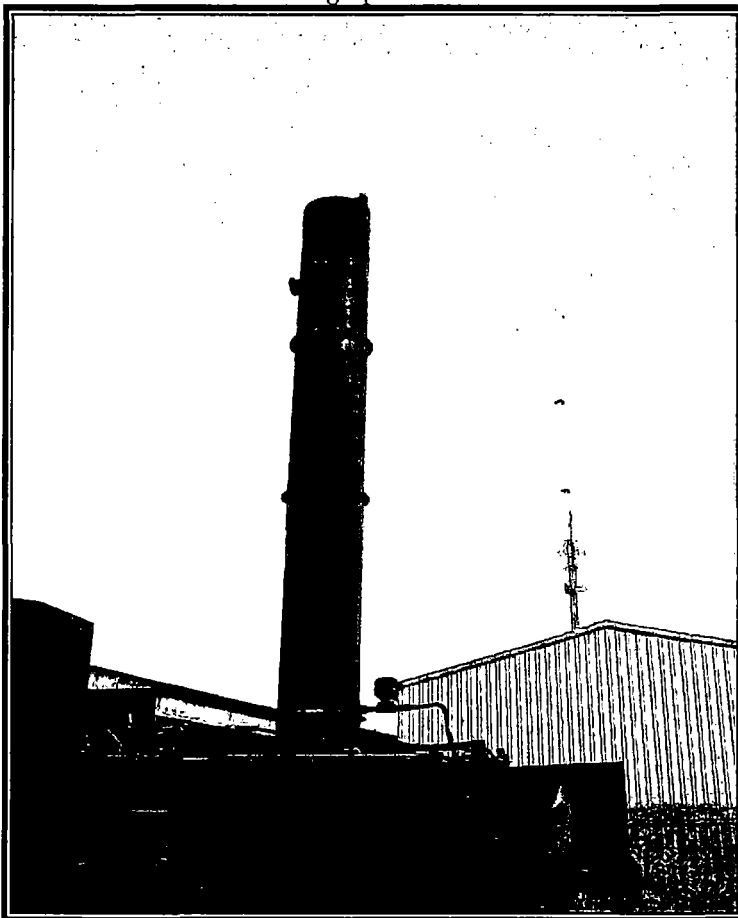
Number of Traverse Points	Subarea Layout Matrix
9	3 x 3
12	4 x 3
16	4 x 4
20	5 x 4
25	5 x 5
30	6 x 5
36	6 x 6
42	7 x 6
49	7 x 7



10.1 Sampling Points per Traverse  
 US Cremation Equipment  
 Model 75/300  
 Report 3494-S

Stack Configuration	Circular
Diameter (inches)	16.75
Distance A - Ports to Downstream Disturbance (inches)	24
Distance A - Ports to Downstream Disturbance (diameters)	1.4
Distance B - Ports to Upstream Disturbance (inches)	132
Distance B - Ports to Upstream Disturbance (diameters)	7.9
Number of Test Ports	2
Wall or Port length	5.5
Number of Sampling Points per Traverse	10
Number of Points Sampled	20

Photograph of Stack



Traverse Point Location	
Traverse Point No.	Inches to Stack Wall
1	5.9
2	6.9
3	8.0
4	9.3
5	11.2
6	16.5
7	18.5
8	19.8
9	20.9
10	22.0

11.0 Summary of Field and Laboratory Data  
 US Cremation Equipment  
 Model 75/300  
 Report 3494-S

	Run 1	Run 2	Run 3
Date	2/25/2011	2/25/2011	2/25/2011
Start Time	13:28	15:15	16:51
Stop Time	14:33	16:18	17:54
CP	0.84	0.84	0.84
Y	1.0030	1.0030	1.0030
$\Delta H_a$ (inches H <sub>2</sub> O)	1.7369	1.7369	1.7369
Diameter of Nozzle (inches)	0.6253	0.6253	0.6253
Stack Diameter or Equivlant (inches)	16.75	16.75	16.75
Static Pressure (inches H <sub>2</sub> O)	-0.04	-0.04	-0.04
Barometric Pressure (inches Hg)	30.00	30.00	30.00
Test Time (minutes)	60	60	60
Meter Volume (cubic feet)	44.544	47.307	49.483
Square Root $\Delta P$ (inches H <sub>2</sub> O)	0.196	0.201	0.211
Orifice Pressure $\Delta H$ (inches H <sub>2</sub> O)	1.628	1.845	2.047
Average Meter Temperature (Deg. F)	89.4	89.3	88.2
Average Stack Temperature (Deg. F)	1152.6	1147.3	1087.4
Particulate Sample Weight (grms)	0.0136	0.0077	0.0101
Water Collected (grms)	82.5	80.4	104.9
Percent CO <sub>2</sub>	4.6	4.4	4.7
Percent O <sub>2</sub>	14.5	14.6	14.4
Molecular Weight (lbs/lb Mole)	29.31	29.29	29.33
Nozzle Area (square feet)	0.00213	0.00213	0.00213

**Attachment A - Field Data**







US CREMATIONS

DATE: 2/25/2011  
 RUN: 1  
 UNIT: 1

AVG. ADJUSTED CO ppmvd @ 7% O2	24.01
CORRECTED O2 %	14.53
CORRECTED CO2 %	4.56
CORRECTED CO ppmvd	11.00

ANALYZER RESPONSE, SYSTEM BIAS AND SYSTEM DRIFT DATA

RANGE SETTING	CAL GASES	CERTIFIED GAS VALUE	ANALYZER VALUE	DIFFERENCE PPM	% SPAN	ANALYZER PRETEST VALUE	% SPAN	ANALYZER POSTTEST VALUE	% SPAN	% DRIFT	ANALYZER SERIAL #
25	% O2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01420B153
		12.00	12.00	0.00	0.00	12.00	0.00	12.00	0.00	0.00	
		22.62	22.65	0.03	0.13						
20	% CO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01410/B139
		8.91	9.00	0.09	0.52	9.00	0.00	9.00	0.00	0.00	
		17.27	17.30	0.03	0.17						
50	PPM CO	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.0	48C-68845-361
		24.7	24.8	0.10	0.2	24.60	-0.4	24.50	-0.6	-0.2	
		48.90	49.10	0.20	0.4						

UNCORRECTED RAW DATA

TIME	O2 %	CO2 %	CO PPM
13:28:00	15.16	4.25	16.00
13:29:00	15.01	4.28	10.05
13:30:00	14.98	4.31	12.60
13:31:00	14.90	4.37	11.65
13:32:00	14.81	4.41	6.35
13:33:00	14.79	4.38	6.00
13:34:00	14.81	4.39	6.00
13:35:00	14.80	4.39	6.70
13:36:00	14.78	4.41	8.20
13:37:00	14.78	4.42	12.15
13:38:00	14.74	4.46	12.45
13:39:00	14.69	4.49	11.55
13:40:00	14.66	4.51	11.60
13:41:00	14.63	4.55	10.85
13:42:00	14.57	4.57	8.15
13:43:00	14.55	4.59	9.55
13:44:00	14.51	4.63	11.15
13:45:00	14.46	4.70	11.50
13:46:00	14.33	4.78	7.55
13:47:00	14.29	4.78	8.00
13:48:00	14.29	4.76	9.55
13:49:00	14.34	4.72	10.60
13:50:00	14.36	4.71	10.70
13:51:00	14.37	4.72	10.85
13:52:00	14.33	4.79	10.15
13:53:00	14.24	4.79	6.60
13:54:00	14.27	4.75	8.30
13:55:00	14.33	4.74	9.35
13:56:00	14.27	5.01	16.50
13:57:00	13.91	5.25	18.80
13:58:00	13.67	5.29	12.55
14:04:00	14.44	4.89	8.10
14:05:00	14.28	4.75	10.20
14:06:00	14.38	4.76	8.20
14:07:00	14.34	4.79	10.90
14:08:00	14.35	4.69	12.30
14:09:00	14.46	4.64	8.05
14:10:00	14.51	4.60	7.05
14:11:00	14.57	4.54	7.10
14:12:00	14.69	4.40	9.35
14:13:00	14.86	4.40	11.35
14:14:00	14.78	4.48	16.05
14:15:00	14.77	4.47	11.20
14:16:00	14.65	4.73	9.15
14:17:00	14.29	4.76	8.80
14:18:00	14.46	4.57	10.10
14:19:00	14.52	4.73	11.85
14:20:00	14.31	4.78	10.30
14:21:00	14.26	4.76	9.65
14:22:00	14.30	4.69	11.05
14:23:00	14.40	4.64	13.95
14:24:00	14.44	4.61	13.45
14:25:00	14.48	4.56	14.90
14:26:00	14.55	4.53	19.35
14:27:00	14.58	4.50	19.25
14:28:00	14.62	4.47	15.10
14:29:00	14.64	4.45	8.95
14:30:00	14.68	4.42	9.60
14:31:00	14.71	4.41	10.75
14:32:00	14.73	4.40	13.35
14:33:00	14.71	4.39	15.70

\* Port Change

MEAN ANALYZER VALUES

Avg. % O2	14.53
Avg. % CO2	4.61
Avg. CO ppmvd	10.94

**US CREMATIONS**

DATE: 2/25/2011  
 RUN: 2  
 UNIT: 1

AVG. ADJUSTED CO ppmvd @ 7% O2	31.60
CORRECTED O2 %	14.59
CORRECTED CO2 %	4.43
CORRECTED CO ppmvd	14.35

**ANALYZER RESPONSE, SYSTEM BIAS AND SYSTEM DRIFT DATA**

RANGE SETTING	CAL GASES	CERTIFIED GAS VALUE	ANALYZER VALUE	DIFFERENCE PPM	% SPAN	ANALYZER PRETEST VALUE	% SPAN	ANALYZER POSTTEST VALUE	% SPAN	% DRIFT	ANALYZER SERIAL #
25	% O2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01420B153
		12.00	12.00	0.00	0.00	12.00	0.00	12.00	0.00	0.00	
		22.62	22.65	0.03	0.13						
20	% CO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01410/B136
		8.91	9.00	0.09	0.52	9.00	0.00	9.00	0.00	0.00	
		17.27	17.30	0.03	0.17						
50	PPM CO	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.0	48C-68845-361
		24.70	24.80	0.10	0.2	24.50	-0.6	24.40	46.8	-0.2	
		48.90	49.10	0.20	0.4						

**UNCORRECTED RAW DATA**

TIME	O2 %	CO2 %	CO PPM
15:15:00	13.83	5.17	14.70
15:16:00	13.77	5.20	15.30
15:17:00	13.78	5.13	17.90
15:18:00	13.93	4.96	13.90
15:19:00	14.12	4.87	11.55
15:20:00	14.21	4.81	11.30
15:21:00	14.35	4.59	13.70
15:22:00	14.66	4.47	18.45
15:23:00	14.75	4.50	16.60
15:24:00	14.66	4.59	16.45
15:25:00	14.57	4.61	19.65
15:26:00	14.54	4.59	16.55
15:27:00	14.51	4.74	15.25
15:28:00	14.27	4.83	17.10
15:29:00	14.19	4.80	17.95
15:30:00	14.24	4.75	20.40
15:31:00	14.31	4.71	23.45
15:32:00	14.37	4.64	23.10
15:33:00	14.45	4.58	22.50
15:34:00	14.51	4.56	14.55
15:35:00	14.54	4.54	11.75
15:36:00	14.53	4.55	11.10
15:37:00	14.57	4.51	11.65
15:38:00	14.62	4.44	12.85
15:39:00	14.69	4.42	19.75
15:40:00	14.70	4.41	16.75
15:41:00	14.73	4.39	16.65
15:42:00	14.76	4.38	16.25
15:43:00	14.81	4.34	15.60
15:44:00	14.83	4.32	18.35
15:45:00	15.28	2.54	17.75
15:49:00	14.54	4.58	9.25
15:50:00	14.51	4.57	7.90
15:51:00	14.50	4.56	8.75
15:52:00	14.54	4.52	14.25
15:53:00	14.59	4.50	14.50
15:54:00	14.61	4.49	11.15
15:55:00	14.62	4.48	11.90
15:56:00	14.64	4.47	9.55
15:57:00	14.65	4.45	10.10
15:58:00	14.68	4.44	9.05
15:59:00	14.69	4.44	10.50
16:00:00	14.69	4.43	10.35
16:01:00	14.71	4.41	11.05
16:02:00	14.74	4.39	12.45
16:03:00	14.75	4.40	12.70
16:04:00	14.74	4.41	8.45
16:05:00	14.76	4.38	7.55
16:06:00	14.78	4.38	11.45
16:07:00	14.78	4.37	17.85
16:08:00	14.81	4.34	22.45
16:09:00	14.83	4.34	14.40
16:10:00	14.83	4.34	9.80
16:11:00	14.84	4.32	9.40
16:12:00	14.88	4.33	11.20
16:13:00	14.85	4.31	12.60
16:14:00	14.88	4.31	9.50
16:15:00	14.87	4.31	10.35
16:16:00	14.89	4.31	19.35
16:17:00	14.89	3.62	19.15
16:18:00	14.83	3.81	10.60

\* Port Change

**MEAN ANALYZER VALUES**

Avg. % O2	14.59
Avg. % CO2	4.47
Avg. CO ppmvd	14.20



**US CREMATIONS**

DATE: 2/25/2011  
 RUN: 3  
 UNIT: 1

AVG. ADJUSTED CO ppmvd @ 7% O2	35.34
CORRECTED O2 %	14.38
CORRECTED CO2 %	4.73
CORRECTED CO ppmvd	16.57

**ANALYZER RESPONSE, SYSTEM BIAS AND SYSTEM DRIFT DATA**

RANGE SETTING	CAL GASES	CERTIFIED GAS VALUE	ANALYZER VALUE	DIFFERENCE PPM	% SPAN	ANALYZER PRETEST VALUE	% SPAN	ANALYZER POSTTEST VALUE	% SPAN	% DRIFT	ANALYZER SERIAL #
25	% O2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01420B153
		12.00	12.00	0.00	0.00	12.00	0.00	11.90	-0.44	-0.44	
		22.62	22.65	0.03	0.13						
20	% CO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	01410/B139
		8.91	9.00	0.09	0.52	9.00	0.00	9.00	0.00	0.00	
		17.27	17.30	0.03	0.17						
50	PPM CO	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.0	48C-68845-361
		24.70	24.80	0.10	0.2	24.40	-0.8	24.50	-0.6	0.2	
		48.90	49.10	0.20	0.4						

**UNCORRECTED RAW DATA**

TIME	O2 %	CO2 %	CO PPM
16:51:00	13.17	5.54	11.30
16:52:00	13.26	5.47	17.25
16:53:00	13.38	5.41	16.30
16:54:00	13.51	5.34	16.05
16:55:00	13.63	5.27	16.40
16:56:00	13.74	5.20	12.65
16:57:00	13.83	5.17	18.95
16:58:00	13.86	5.17	12.75
16:59:00	13.86	5.14	9.80
17:00:00	13.91	5.11	12.60
17:01:00	13.94	5.08	13.90
17:02:00	13.99	5.03	12.00
17:03:00	14.06	5.00	11.40
17:04:00	14.07	5.01	13.45
17:05:00	14.06	4.99	16.90
17:06:00	14.08	4.96	18.40
17:07:00	14.11	4.94	22.50
17:08:00	14.13	4.91	20.05
17:09:00	14.16	4.90	20.15
17:10:00	14.16	4.89	18.70
17:11:00	14.19	4.86	14.35
17:12:00	14.23	4.83	11.75
17:13:00	14.26	4.84	20.90
17:14:00	14.26	4.79	13.45
17:15:00	14.32	4.76	11.60
17:16:00	14.36	4.74	9.30
17:17:00	14.38	4.72	12.55
17:18:00	14.41	4.68	21.10
17:19:00	14.48	4.65	19.70
17:20:00	14.49	4.28	15.00
17:21:00	14.44	4.51	17.45
17:25:00	14.49	4.94	12.15
17:26:00	14.15	4.96	15.40
17:27:00	14.12	4.93	20.85
17:28:00	14.18	4.77	16.55
17:29:00	14.46	4.59	14.55
17:30:00	14.63	4.57	17.65
17:31:00	14.59	4.69	21.50
17:32:00	14.51	4.59	14.20
17:33:00	14.64	4.58	13.55
17:34:00	14.58	4.61	15.20
17:35:00	14.65	4.49	23.65
17:36:00	14.73	4.57	23.45
17:37:00	14.65	4.52	18.75
17:38:00	14.73	4.53	14.45
17:39:00	14.67	4.53	14.35
17:40:00	14.77	4.42	20.40
17:41:00	14.81	4.56	21.90
17:42:00	14.67	4.46	16.50
17:43:00	14.83	4.49	15.80
17:44:00	14.67	4.56	13.55
17:45:00	14.74	4.41	14.20
17:46:00	14.81	4.56	20.30
17:47:00	14.61	4.59	22.00
17:48:00	14.71	4.40	17.45
17:49:00	14.86	4.48	13.45
17:50:00	14.72	4.57	19.45
17:51:00	14.63	4.54	19.10
17:52:00	14.79	4.35	20.70
17:53:00	14.95	4.63	20.75
17:54:00	14.63	4.31	10.15

**MEAN ANALYZER VALUES**

Avg. % O2	14.32
Avg. % CO2	4.78
Avg. CO ppmvd	16.40

RUN # 1

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9    203A    203B    Other: \_\_\_\_\_

Company Name  
**METRO PET CREMATORY - MODEL US 75/300**

Facility Name  
**KELLER MECHANICAL**

Street Address  
**305 WINSTON CREEK PARKWAY**

City **LAKELAND** State **FL** Zip **33810**

Process **ANIMAL CREMATION** Unit # **1** Operating Mode **NORMAL 75 LBS**

Control Equipment **AFTES2RVZINER** Operating Mode **NORMAL**

Describe Emission Point  
**METAL STACK**

Height of Emiss. Pt. Start **20 FT** End **20 FT** Height of Emiss. Pt. Rel. to Observer Start **20 FT** End **20 FT**

Distance to Emiss. Pt. Start **60 FT** End **60 FT** Direction to Emiss. Pt. (Degrees) Start **0°** End **0°**

Vertical Angle to Obs. Pt. Start **19°** End **19°** Direction to Obs. Pt. (Degrees) Start **0°** End **0°**

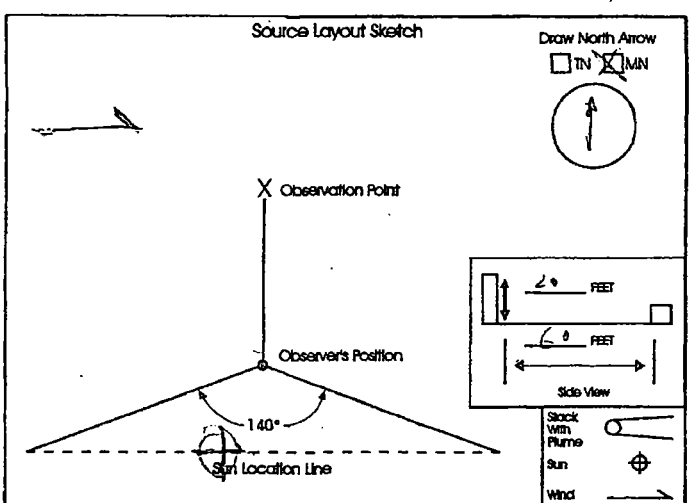
Distance and Direction to Observation Point from Emission Point Start **N/A** End **N/A**

Describe Emissions  
 Start **NONE** End **NONE**  
 Emission Color Start **N/A** End **N/A**  
 Water Droplet Plume Attached  Detached  None

Describe Plume Background  
 Start **CLOUDS** End **CLOUDS**  
 Background Color Start **WHITE** End **WHITE** Sky Conditions Start **SCATTERED** End **SCATTERED**

Wind Speed Start **5-15 MPH** End **5-15 MPH** Wind Direction Start **W** End **W**

Ambient Temp. Start **70°F** End **75°F** Wet Bulb Temp. **80%** RH Percent



Longitude **-82.0 W** Latitude **28.1 N** Declination **5° 17' W**

Additional Information

Form Number \_\_\_\_\_ Page **1** of **2**  
 Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone				Start Time	End Time
02/25/11		EST				1:30 PM	2:00 PM
Min	Sec	0	15	30	45	Comments	
1	0	0	0	0	0		
2	0	0	0	0	0		
3	0	0	0	0	0		
4	0	0	0	0	0		
5	0	0	0	0	0		
6	0	0	0	0	0		
7	0	0	0	0	0		
8	0	0	0	0	0		
9	0	0	0	0	0		
10	0	0	0	0	0		
11	0	0	0	0	0		
12	0	0	0	0	0		
13	0	0	0	0	0		
14	0	0	0	0	0		
15	0	0	0	0	0		
16	0	0	0	0	0		
17	0	0	0	0	0		
18	0	0	0	0	0		
19	0	0	0	0	0		
20	0	0	0	0	0		
21	0	0	0	0	0		
22	0	0	0	0	0		
23	0	0	0	0	0		
24	0	0	0	0	0		
25	0	0	0	0	0		
26	0	0	0	0	0		
27	0	0	0	0	0		No OBJECTIONABLE
28	0	0	0	0	0		SMOKE OR ODORS
29	0	0	0	0	0		
30	0	0	0	0	0		

Observer's Name (Print) **LUIS F. DEL PINO**

Observer's Signature Date **02/25/11**

Organization **AI-ENVIRONMENTAL**

Certified by **ETA 291226** Date **02/02/11**

RUN # 1

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 (Method 9) 203A 203B Other: \_\_\_\_\_

Form Number \_\_\_\_\_ Page 2 of 2  
 Continued on VEO Form Number \_\_\_\_\_

Company Name  
 METYS PET CREMATORY - MODEL VS 75/300  
 Facility Name  
 KELLER MECHANICAL  
 Street Address  
 305 WINSTON CREEK PKWY  
 City  
 LAKELAND State  
 FL Zip  
 33810

Process  
 ANIMAL CREMATION Unit #  
 1 Operating Mode  
 NORMAL 75 LBS  
 Control Equipment  
 AFTERBURNER Operating Mode  
 NORMAL 1,650 °F

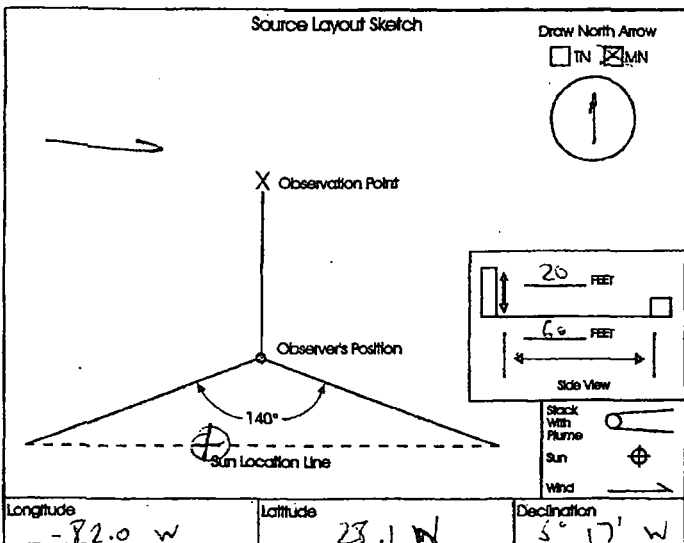
Describe Emission Point  
 METAL STACK

Height of Emiss. Pt.  
 Start 20 FT End 20 FT Height of Emiss. Pt. Rel. to Observer  
 Start 20 FT End 20 FT  
 Distance to Emiss. Pt. (Degree)  
 Start 60 FT End 60 FT Start 0° End 0°

Vertical Angle to Obs. Pt.  
 Start 5° End 19° Direction to Obs. Pt. (Degree)  
 Start 0° End 0°  
 Distance and Direction to Observation Point from Emission Point  
 Start N/A End N/A

Describe Emissions  
 Start NONE End NONE  
 Emission Color  
 Start N/A End N/A Water Droplet Plume  
 Attached  Detached  None

Describe Plume Background  
 Start CLOUDS End CLOUDS  
 Background Color  
 Start WHITE End WHITE Sky Conditions  
 Start SCATTERED End SCATTERED  
 Wind Speed  
 Start 5-15 MPH End 5-15 MPH Wind Direction  
 Start W End W  
 Ambient Temp.  
 Start 70° F End 75° F Wet Bulb Temp.  
 RH Percent  
 80%



Observation Date	Time Zone	Start Time	End Time	Comments					
02/25/11	EST	2:01 PM	2:30 PM	Sec	0	15	30	45	
Min	0	15	30	45					
1	0	0	0	0					
2	0	0	0	0					
3	0	0	0	0					
4	0	0	0	0					
5	0	0	0	0					
6	0	0	0	0					
7	0	0	0	0					
8	0	0	0	0					
9	0	0	0	0					
10	0	0	0	0					
11	0	0	0	0					
12	0	0	0	0					
13	0	0	0	0					
14	0	0	0	0					
15	0	0	0	0					
16	0	0	0	0					
17	0	0	0	0					
18	0	0	0	0					
19	0	0	0	0					
20	0	0	0	0					
21	0	0	0	0					
22	0	0	0	0					
23	0	0	0	0					
24	0	0	0	0					
25	0	0	0	0					
26	0	0	0	0					NO OBJECTIONABLE
27	0	0	0	0					SAMPLE OR OTHERS
28	0	0	0	0					
29	0	0	0	0					
30	0	0	0	0					

Observer's Name (Print)  
 Luis F. DEL PINO  
 Observer's Signature  
 Date  
 02/25/11  
 Organization  
 AI-ENVIRONMENTAL  
 Certified By  
 ETA-391226 Date  
 02/02/11  
 1-277-01 Phone (407) 574-2021 FAX: (407) 74-2456

RUN # 2

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 (Method 9) 203A 203B Other: \_\_\_\_\_

Form Number \_\_\_\_\_ Page 1 of 2  
 Continued on VEO Form Number \_\_\_\_\_

Company Name  
 METRO PET CREMATORY - MODEL US 25/300  
 Facility Name  
 KELLER MECHANICAL  
 Street Address  
 355 WINSTON CREEK PKWY  
 City LAKELAND State FL Zip 33810

Observation Date 02/25/11 Time Zone EST Start Time 3:14 PM End Time 3:43 PM

Process ANIMAL CREMATION Unit # 1 Operating Mode NORMAL 69LLS  
 Control Equipment AFTER BURNER Operating Mode NORMAL 1650°F

Min	Sec				Comments
	0	15	30	45	
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	NO OBJECTIVABLE
28	0	0	0	0	SMOKE OIL IDENT
29	0	0	0	0	
30	0	0	0	0	

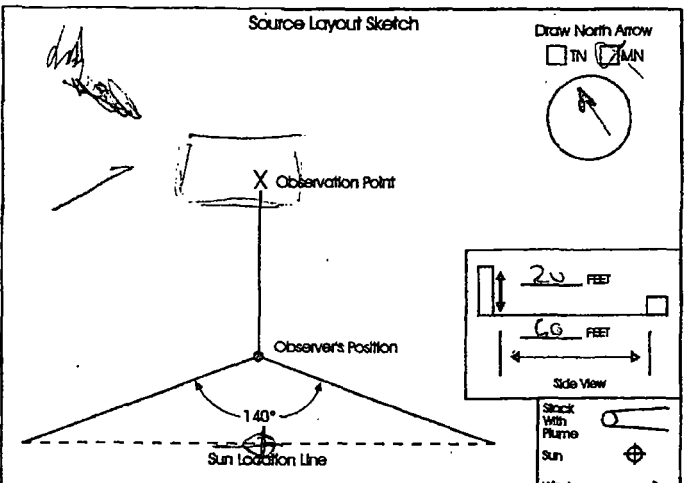
Describe Emission Point  
 METAL STACK

Height of Emis. Pt. Start 20 FT End 20 FT Height of Emis. Pt. Rel. to Observer Start 20 FT End 20 FT  
 Distance to Emis. Pt. Start 60 FT End 60 FT Direction to Emis. Pt. (Degrees) Start 35° End 35°

Vertical Angle to Obs. Pt. Start 19° End 19° Direction to Obs. Pt. (Degrees) Start 35° End 35°  
 Distance and Direction to Observation Point from Emission Point Start N/A End N/A

Describe Emissions  
 Start NONE End NONE  
 Emission Color Start N/A End N/A Water Droplet Plume Attached  Detached  None

Describe Plume Background  
 Start SKY End SKY  
 Background Color Start BLUE End BLUE Sky Conditions Start CLEAR End CLEAR  
 Wind Speed Start 5-15 MPH End 5-15 MPH Wind Direction Start W End W  
 Ambient Temp. Start 80°F End 80°F Wet Bulb Temp. RH Percent 85%



Longitude -82.0 W Latitude 28.1 N Destination 17° W

Observer's Name (Print) LUIS F. DEL PINO  
 Observer's Signature [Signature] Date 02/25/11  
 Organization A1-ENVIRONMENTAL  
 Certified By ETA-391226 Date 02/02/11

Additional Information

RUN # 2

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9    203A    203B    Other: \_\_\_\_\_

Company Name  
METRO PET CREMATORY - MODEL VS 75/300

Facility Name  
KELLER MECHANICAL

Street Address  
305 WINSTON CREEK PIKWAY

City  
LAKELAND

State  
FL

Zip  
33810

Process  
ANIMAL CREMATION

Unit #  
1

Operating Mode  
NORMAL 69 LB

Control Equipment  
AFTERBURNER

Operating Mode  
NORMAL 1650°F

Describe Emission Point  
METAL STACK

Height of Emiss. Pt.  
Start 20 FT End 20 FT

Height of Emiss. Pt. Rel. to Observer  
Start 20 FT End 20 FT

Distance to Emiss. Pt.  
Start 60 FT End 60 FT

Direction to Emiss. Pt. (Degrees)  
Start 35° End 35°

Vertical Angle to Obs. Pt.  
Start 19° End 19°

Direction to Obs. Pt. (Degrees)  
Start 35° End 35°

Distance and Direction to Observation Point from Emission Point  
Start N/A End N/A

Describe Emissions

Start NONE End NONE

Emission Color  
Start N/A End N/A

Water Droplet Plume  
Attached  Detached  None

Describe Plume Background

Start SKY End SKY

Background Color  
Start BLUE End BLUE

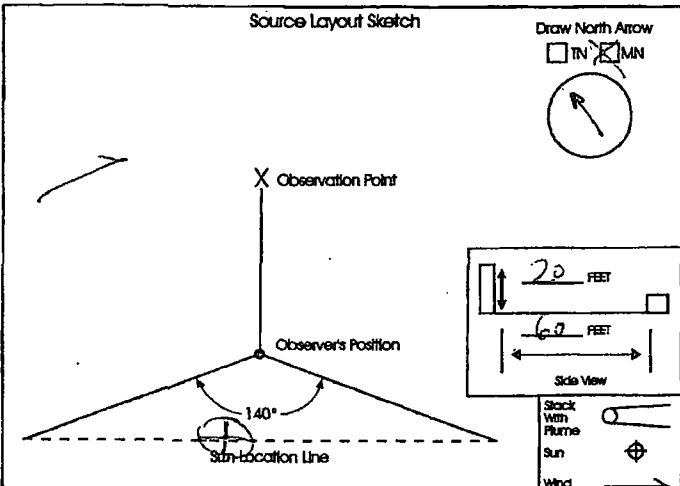
Sky Conditions  
Start CLEAR End CLEAR

Wind Speed  
Start 5-10 MPH End 5-10 MPH

Wind Direction  
Start W End W

Ambient Temp.  
Start 10°F End 80°F

Wet Bulb Temp.  
RH Percent 85%



Longitude  
-82.0 W

Latitude  
28.1 N

Declination  
5° 17' W

Additional Information

Form Number \_\_\_\_\_ Page 2 of 2

Continued on VEO Form Number \_\_\_\_\_

Observation Date	Time Zone	Start Time	End Time						
02/25/11	EST	3:46 PM	4:15 PM	Sec	0	15	30	45	Comments
Min	0	15	30	45					
1	0	0	0	0					
2	0	0	0	0					
3	0	0	0	0					
4	0	0	0	0					
5	0	0	0	0					
6	0	0	0	0					
7	0	0	0	0					
8	0	0	0	0					
9	0	0	0	0					
10	0	0	0	0					
11	0	0	0	0					
12	0	0	0	0					
13	0	0	0	0					
14	0	0	0	0					
15	0	0	0	0					
16	0	0	0	0					
17	0	0	0	0					
18	0	0	0	0					
19	0	0	0	0					
20	0	0	0	0					
21	0	0	0	0					
22	0	0	0	0					
23	0	0	0	0					
24	0	0	0	0					
25	0	0	0	0					
26	0	0	0	0					NO OBJECTIONABLE
27	0	0	0	0					Smoke or odors
28	0	0	0	0					
29	0	0	0	0					
30	0	0	0	0					

Observer's Name (Print)  
LUIS F. DEL PINO

Observer's Signature  
LAD

Date  
02/25/11

Organization  
A1-ENVIRONMENTAL

Certified By  
ETA-35126

Date  
02/02/11

RUN # 3

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9    203A    203B    Other: \_\_\_\_\_

Company Name  
**METRO PET CREM. ONLY - MODEL US 15/300**

Facility Name  
**KELLEN MECHANICAL**

Street Address  
**305 WINSTON CREEK PKWY**

City    State    Zip  
**LAKELAND    FL    33810**

Process    Unit #    Operating Mode  
**ANIMAL CREMATION    1    NORMAL TILLS**

Control Equipment    Operating Mode  
**AFTER BURNED    NORMAL 1,650°F**

Describe Emission Point  
**METAL STACK**

Height of Emiss. Pt.  
 Start **20 FT** End **20 FT**    Height of Emiss. Pt. Rel. to Observer  
 Start **20 FT** End **20 FT**

Distance to Emiss. Pt.  
 Start **60 FT** End **60 FT**    Direction to Emiss. Pt. (Degrees)  
 Start **35°** End **35°**

Vertical Angle to Obs. Pt.  
 Start **19°** End **19°**    Direction to Obs. Pt. (Degrees)  
 Start **35°** End **35°**

Distance and Direction to Observation Point from Emission Point  
 Start **N/A** End **N/A**

Describe Emissions  
 Start **NONE** End **NONE**

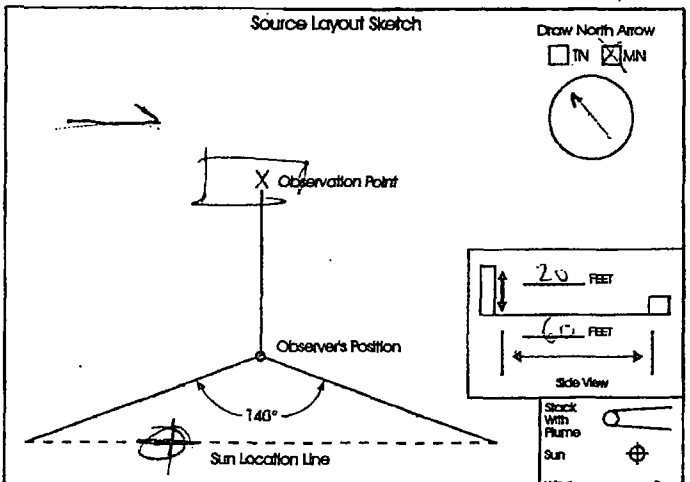
Emission Color    Water Droplet Plume  
 Start **N/A** End **N/A**    Attached  Detached  None

Describe Plume Background  
 Start **SKY** End **SKY**

Background Color    Sky Conditions  
 Start **BLUE** End **BLUE**    Start **CLEAR** End **CLEAR**

Wind Speed    Wind Direction  
 Start **5-15 MPH** End **5-15 MPH**    Start **W** End **W**

Ambient Temp.    Wet Bulb Temp.    RH Percent  
 Start **80°F** End **80°F**       **85%**



Longitude    Latitude    Declination  
**-82.6 W    28.1 N    17° W**

Additional Information

Form Number    Page **1** of **2**  
 Continued on VEO Form Number

Observation Date	Time Zone	Start Time	End Time						
02/25/11	EST	4:56 PM	5:20 PM	Sec	0	15	30	45	Comments
1	0	0	0	0					
2	0	0	0	0					
3	0	0	0	0					
4	0	0	0	0					
5	0	0	0	0					
6	0	0	0	0					
7	0	0	0	0					
8	0	0	0	0					
9	0	0	0	0					
10	0	0	0	0					
11	0	0	0	0					
12	0	0	0	0					
13	0	0	0	0					
14	0	0	0	0					
15	0	0	0	0					
16	0	0	0	0					
17	0	0	0	0					
18	0	0	0	0					
19	0	0	0	0					
20	0	0	0	0					
21	0	0	0	0					
22	0	0	0	0					
23	0	0	0	0					
24	0	0	0	0					
25	0	0	0	0					
26	0	0	0	0	NO OBSCURABLE				
27	0	0	0	0	SMOKE OR ODORS				
28	0	0	0	0					
29	0	0	0	0					
30	0	0	0	0					

Observer's Name (Print)  
**LUIGI F. DEL PINO**

Observer's Signature    Date  
**[Signature]    02/25/11**

Organization  
**AI - ENVIRONMENTAL**

Certified by    Date  
**ETA - 391226    02/25/11**

RUN # 3

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9      203A      203B      Other: \_\_\_\_\_

Form Number \_\_\_\_\_ Page 2 of 2  
 Continued on VEO Form Number \_\_\_\_\_

Company Name  
METAL PET CREMATORY - MODEL VS 75/360  
 Facility Name  
KELLER MECHANICAL  
 Street Address  
305 WINSTON CREEK PKWY  
 City  
LAKELAND      State  
FL      Zip  
33810

Observation Date  
02/25/11      Time Zone  
EST      Start Time  
2:21 PM      End Time  
3:50 PM

Process  
ANIMAL CREMATION      Unit #  
1      Operating Mode  
NORMAL 75 LBS  
 Control Equipment  
AFTER BURNER      Operating Mode  
NORMAL 1,600°F

Sec Min	Time				Comments
	0	15	30	45	
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	NO OBJECTIONABLE
26	0	0	0	0	SMOKE OR RIDGES
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

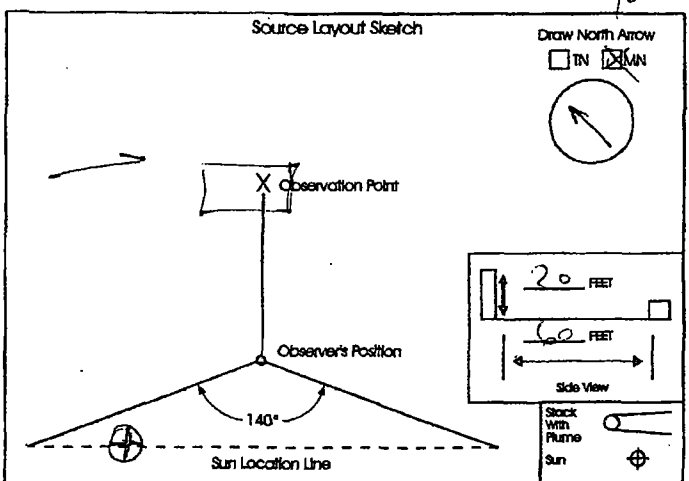
Describe Emission Point  
METAL STACK

Height of Emiss. Pt.  
 Start 20 FT End 20 FT      Height of Emiss. Pt. Rel. to Observer  
 Start 20 FT End 20 FT  
 Direction to Emiss. Pt. (Degree)  
 Start 60° End 60°      Start 35° End 35°

Vertical Angle to Obs. Pt.  
 Start 19° End 19°      Direction to Obs. Pt. (Degree)  
 Start 35° End 35°  
 Distance and Direction to Observation Point from Emission Point  
 Start N/A End N/A

Describe Emissions  
 Start NONE End NONE  
 Emission Color  
 Start N/A End N/A      Water Droplet Plume  
 Attached  Detached  None

Describe Plume Background  
 Start SKY End SKY  
 Background Color  
 Start BLUE End BLUE      Sky Conditions  
 Start CLEAR End CLEAR  
 Wind Speed  
 Start 5-15 MPH End 5-15 MPH      Wind Direction  
 Start W End W  
 Ambient Temp.  
 Start 80°F End 80°F      Wet Bulb Temp.  
85%



Longitude  
82.0 W      Latitude  
28.1 N      Declination  
5° 17' W

Observers Name (Print)  
LUIS F DEL PINO  
 Observers Signature  
[Signature]      Date  
02/25/11  
 Organization  
AI-ENVIRONMENTAL  
 Certified By  
ETA-391226      Date  
02/02/11

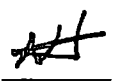
Additional Information

**Attachment B - Laboratory Data**



Particulate Laboratory Data  
US Cremation Equipment  
Model 75/300  
Report 3494-S

Run 1

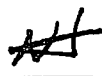
Filter Number	1566	
	Final Weight	0.3637 grams
	Tare Weight	0.3608 grams
	Difference	0.0029 grams
Beaker Number	1A	
	Final Weight	109.3256 grams
	Tare Weight	109.3144 grams
	Difference	0.0112 grams
Filter Blank Number	1572	
	Final Weight	0.3585 grams
	Tare Weight	0.3585 grams
	Difference	0.0000 grams
Wash Down Blank		
	Volume of Rinse	60 mls
	Solution of Residue	0.00000784 grams/mls
	Total Residue	0.0004704 grams/mls
Total Particulate Weight		0.0136 grams
Water Collected		
	Final Impinger Water	275 MLS
	Initial Impinger Water	200 MLS
	Final Silica Weight	207.6 GRAMS
	Silica Tare Weight	200.0 GRAMS
Total Water Collected		82.5 grams
Analyst		

Particulate Laboratory Data  
US Cremation Equipment  
Model 75/300  
Report 3494-S

Run 2

Filter Number	2A	
	Final Weight	0.3617 grams
	Tare Weight	0.3604 grams
	Difference	0.0013 grams
Beaker Number	2A	
	Final Weight	107.1887 grams
	Tare Weight	107.1818 grams
	Difference	0.0069 grams
Filter Blank Number	1572	
	Final Weight	0.3585 grams
	Tare Weight	0.3585 grams
	Difference	0.0000 grams
Wash Down Blank		
	Volume of Rinse	70 mls
	Solution Residue	0.00000784 grams/ml
	Total Residue	0.0005488 grams/ml
<b>Total Particulate Weight</b>		<b>0.0077 grams</b>
Water Collected		
	Final Impinger Water	273 MLS
	Initial Impinger Water	200 MLS
	Final Silica Weight	207.5 GRAMS
	Silica Tare Weight	200.0 GRAMS
<b>Total Water Collected</b>		<b>80.4 grams</b>

Analyst

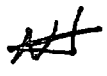


Particulate Laboratory Data  
US Cremation Equipment  
Model 75/300  
Report 3494-S

Run 3

Filter Number	1568	
	Final Weight	0.3615 grams
	Tare Weight	0.3600 grams
	Difference	0.0015 grams
Beaker Number	3A	
	Final Weight	108.3688 grams
	Tare Weight	108.3596 grams
	Difference	0.0092 grams
Filter Blank Number	1572	
	Final Weight	0.3585 grams
	Tare Weight	0.3585 grams
	Difference	0.0000 grams
Wash Down Blank		
	Volume of Rinse	75 mls.
	Solution Residue	0.00000784 grams/ml.
	Total Residue	0.000588 grams
Total Particulate Weight		0.0101 grams
Water Collected		
	Final Impinger Water	297 mls.
	Initial Impinger Water	200 mls.
	Final Silica Weight	208.1 grams
	Silica Tare Weight	200.0 grams
Total Water Collected		104.9 grams

Analyst

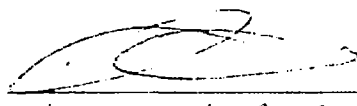


**Attachment C - Process Data**

## Emission Control Device and Process Data

Company US Cremations  
 Installation Crematory  
 Date 2/25/11 Report No. 3494-S  
 Type of Installation Pet Crematory  
 Type of Material Processed Animal Remains  
 Type(s) of Fuel Used Propane  
 Type of Pollution Control System After burner  
 General Condition of Control Equipment New

Run No.	1	2	3
Start Time	13:28	15:15	16:51
Stop Time	14:33	16:18	17:54
Fuel Used	—	—	—
Scrubber Water Flow Rate (GPM)	NA	NA	NA
Pressure Drop (in. H <sub>2</sub> O)	NA	NA	NA
Total Operating temp.	1647	1648	1650
Process Rate <u>lb/hr</u>	75	69	75
Percent Recycle	NA	NA	NA

Signature  Title Project Manager  
 Name Louis L. Loria  
 (Please Print)

**Attachment D - Calculations for Run 1**

CALCULATIONS FOR RUN 1

US Cremation Equipment

Model 75/300

Report 3494-S

STACK AREA

$$3.1416 \times (\text{Diameter} / 24)^2$$
$$3.1416 \times ( 16.75 / 24)^2$$
$$1.53 \quad \text{SQ.FT.}$$

STACK PRESSURE

BAROMETRIC PRESSURE + (STATIC PRESSURE/ 13.6)

$$30.00 + ( -0.04 / 13.6 )$$
$$30.00 \quad \text{IN.HG}$$

METER PRESSURE

BAROMETRIC PRESSURE + (ORIFICE PRESURE/13.6)

$$30.00 + ( 1.63 / 13.6 )$$
$$30.12 \quad \text{IN.Hg}$$

SAMPLE VOLUME

$$17.64 \times (Y) \times \text{METER VOLUME} \times \text{METER PRESSURE} / (\text{METER TEMP.} + 460)$$
$$17.64 \times 1.0030 \times 44.544 \times 30.12 / ( 89.4 + 460 )$$
$$43.208 \quad \text{STD.CU.FT.}$$

WATER VAPOR VOLUME

0.04715 X WATER COLLECTED

$$0.04715 \times 82.5$$
$$3.89 \quad \text{STD.CU.FT.}$$

SAMPLE MOISTURE

$$100 \times \text{WATER VAPOR VOLUME} / (\text{WATER VAPOR VOLUME} + \text{SAMPLE VOLUME})$$
$$100 \times 3.89 / ( 3.89 + 43.208 )$$
$$8.26\%$$

SATURATION MOISTURE

$$100 \times (\text{VAPOR PRESSURE @ STACK TEMP.} / \text{STACK PRESSURE})$$
$$100 \times ( 112.644 / 30.00 )$$
$$100\%$$

STACK MOISTURE FRACTION

(THE LESSER OF SAMPLE MOISTURE OR SATURATION MOISTURE) / 100

$$0.083$$

DRY MOLECULAR WEIGHT OF STACK GAS

$$(0.28 \times (100 - (\%CO_2 + \%O_2))) + (0.44 \times \%CO_2) + (0.32 \times \%O_2)$$
$$(0.28 \times (100 - ( 4.56 + 14.53 ))) + (0.44 \times 4.56 ) + (0.32 \times 14.53)$$
$$29.31$$

**CALCULATIONS FOR RUN 1**

**US Cremation Equipment**

**Model 75/300**

**Report 3494-S**

**MOLECULAR WEIGHT OF STACK GAS**  
MOLECULAR WEIGHT X (1 - MOISTURE) + (18 X MOISTURE)  
29.31 X (1 - 0.083 ) + (18 X 0.083 )  
28.38

**STACK VELOCITY**  
85.49 X CP X 60 X SQ.(^P) X SQ.(STACK TEMP + 460)/SQ.(STACK PRESSURE X MOLECULAR WT.)  
85.49 X 0.840 X 60 X 0.196 X SQ.( 1152.6 + 460 ) / SQR( 30.00 X 28.377 )  
1164 FPM

**VOLUMETRIC FLOW RATE (ACFM)**  
STACK AREA X STACK VELOCITY  
1.53 X 1164  
1781 ACFM

**VOLUMETRIC FLOW RATE (SCFM) DRY**  
17.64 X (ACFM) X STACK PRESSURE X (1-MOISTURE) / (STACK TEMP. + 460)  
17.64 X 1781 X 30.00 X (1 - 0.083 ) / ( 1152.6 + 460 )  
536 SCFM (DRY)

**PM CONCENTRATION (gr/dscf)**  
Total Particulate Weight X 15.43 / Sample Volume  
0.0136 X 15.43 / 43.21  
0.0049

**PM CONCENTRATION CORRECTED TO 7% O2 (gr/dscf)**  
PM Concentration X (%O2 (Air) - %O2 (Referenced)) / (%O2 (Air) - %O2 (Measured))  
0.0049 X (20.9 - 7) / (20.9 - 14.53)  
0.0106

**PM CONCENTRATION CORRECTED TO 12% CO2 (gr/dscf)**  
PM Concentration X (%CO2 (Air) - %CO2 (Referenced)) / (%CO2 (Air) - %CO2 (Measured))  
0.0049 X (0.03 - 12) / (0.03 - 4.56)  
0.0129

**PM MASS EMISSION RATE (LBS./HR.)**  
CONCENTRATION X (SCFM- DRY) X 60 / 7000  
0.0049 X 536 X 60 / 7000  
0.02 LBS/HR



CALCULATIONS FOR RUN 1

US Cremation Equipment

Model 75/300

Report 3494-S

PERCENT ISOKINETIC

$$\frac{0.0945 \times (\text{STACK TEMP.} + 460) \times \text{SAMPLE VOLUME} \times 60}{(\text{STACK PRES.} \times \text{VELOCITY} \times \text{NOZZLE AREA} \times \text{TEST TIME} \times (1 - \text{MOISTURE}))}$$

$$\frac{0.0945 \times (1152.55 + 460) \times 43.21 \times 60}{30 \times 1164 \times 0.00213 \times 60 \times (1 - 0.083)}$$

96.40%

CARBON MONOXIDE EMISSIONS CORRECTED TO 7% O2 (PPM)

$$\text{CO Concentration} \times \frac{(\%O_2 (\text{Air}) - \%O_2 (\text{Referenced}))}{(\%O_2 (\text{Air}) - \%O_2 (\text{Measured}))}$$

$$11.00 \times \frac{(20.9 - 7)}{(20.9 - 14.53)}$$

24.00 PPM

PERCENT EXCESS AIR

$$\frac{100 \times (\%O_{2(\text{MEASURED})} - 0.5 \times \text{PPM}_{\text{CO}} \div 10,000\% / \text{PPM})}{0.264 \times (100 - (\%O_2 + \%CO_2 + \text{PPM}_{\text{CO}} \div 10,000\% / \text{PPM}) - (\%O_2 - 0.5 \times (\text{PPM}_{\text{CO}} \div 10,000\% / \text{PPM}))}$$

$$\frac{100 \times (14.53 - 0.5 \times (11 \div 10,000))}{0.264 \times (100 - (14.53 + 4.56 + (11 \div 10,000)) - (14.53 - 0.5 \times 11 \div 10,000))}$$

$$0.264 \times (100 - (14.53 + 4.56 + (11 \div 10,000)) - (14.53 - 0.5 \times 11 \div 10,000))$$

212.71%

CARBON MONOXIDE EMISSIONS CORRECTED TO 50% EXCESS AIR

$$\frac{\text{PPM}_{\text{CO}} (100 + \text{EXCESS AIR})}{150}$$

150

22.93 PPM

**Attachment E - Calibration Data**

ANNUAL METER CALIBRATION		METER NO. 002047		ORIFICE SET NO. JC40-73															
DATE	9/3/2010	Y=	1.0030	MAX % VARIATION	0.9480% PASS														
BAROMETRIC PRESSURE	29.95	^Ha=	1.7369	MAX % VARIATION	2.9218% PASS														
<b>CRITICAL ORIFICE DATA</b>																			
ORIFICE SERIAL NO.	ORIFICE K' FACTOR	ACTUAL VACUUM	^H (IN H2O)	TIME (MIN.)	AMBIENT TEMP INITIAL	AMBIENT TEMP FINAL	METER TEMP INITIAL	METER TEMP FINAL	METER READING INITIAL	METER READING FINAL	VM (CU.FT.)	VM CORRECTED	Vcr STD	Vcr NOMINAL	Y	VARIATION	^H (IN. H2O)	VARIATION	
40	0.2435	23.5	0.31	10	93	93	95	95	24.900	28.143	3.2430	3.0894	3.1012	3.2461	1.0038	0.0000	1.7266	-0.0026	
40	0.2435	23.0	0.31	10	93	93	94	94	28.300	31.534	3.2340	3.0864	3.1012	3.2461	1.0048	0.0010	1.7297	0.0005	
40	0.2435	23.5	0.31	10	93	94	94	94	31.534	34.773	3.2390	3.0912	3.0998	3.2476	1.0028	-0.0010	1.7313	0.0021	
<b>AVERAGE</b>																1.0038	0.0038	1.7292	0.0045
48	0.3557	22.5	0.65	10	80	81	81	82	873.700	878.326	4.6260	4.5206	4.5823	4.6880	1.0136	0.0042	1.6995	0.0005	
48	0.3557	22.0	0.65	10	81	82	82	83	878.326	882.951	4.6250	4.5113	4.5781	4.6923	1.0148	0.0053	1.6996	0.0005	
48	0.3557	21.5	0.65	10	82	82	83	84	882.957	887.657	4.7000	4.5760	4.5759	4.6945	1.0000	-0.0095	1.6980	-0.0010	
<b>AVERAGE</b>																1.0095	0.0095	1.6990	0.0218
55	0.4616	21.5	1.15	10	83	84	84	85	888.500	894.618	6.1180	5.9529	5.9301	6.1005	0.9962	-0.0069	1.7855	-0.0022	
55	0.4616	21.0	1.15	10	84	85	87	87	901.700	907.708	6.0080	5.8192	5.9247	6.1061	1.0181	0.0151	1.7806	-0.0071	
55	0.4616	21.0	1.15	10	94	94	92	91	3.800	9.946	6.1460	5.9043	5.8736	6.1592	0.9948	-0.0082	1.7969	0.0092	
<b>AVERAGE</b>																1.0030	0.0030	1.7877	0.0292
63	0.5916	20.0	1.85	10	85	86	88	89	914.800	922.646	7.8460	7.5916	7.5863	7.8330	0.9993	-0.0019	1.7423	0.0005	
63	0.5916	20.0	1.85	10	86	86	89	89	922.646	930.473	7.8270	7.5664	7.5828	7.8366	1.0022	0.0010	1.7423	0.0005	
63	0.5916	20.0	1.85	10	86	86	89	90	930.473	938.307	7.8340	7.5662	7.5828	7.8366	1.0022	0.0010	1.7407	-0.0011	
<b>AVERAGE</b>																1.0012	0.0012	1.7418	0.0028
73	0.8234	17.5	3.50	10	90	91	89	89	970.400	981.243	10.8430	10.5242	10.5106	10.9519	0.9987	0.0011	1.7156	-0.0113	
73	0.8234	17.5	3.55	10	91	93	89	90	981.243	992.089	10.8460	10.5188	10.4963	10.9668	0.9979	0.0003	1.7433	0.0164	
73	0.8234	17.5	3.50	10	93	94	90	90	992.089	1002.949	10.8600	10.5215	10.4821	10.9817	0.9963	-0.0014	1.7218	-0.0051	
<b>AVERAGE</b>																0.9976	0.0024	1.7269	0.0058
<b>SEMI ANNUAL CALIBRATION</b>		DATE 3/20/2010		<b>BAROMETRIC PRESSURE</b>		30.07													
ORIFICE SERIAL NO.	ORIFICE K' FACTOR	ACTUAL VACUUM	^H (IN H2O)	TIME (MIN.)	AMBIENT TEMP INITIAL	AMBIENT TEMP FINAL	METER TEMP INITIAL	METER TEMP FINAL	METER READING INITIAL	METER READING FINAL	VM (CU.FT.)	VM CORRECTED	Vcr STD	Vcr NOMINAL	Y	VARIATION	^H (IN. H2O)	VARIATION	
55	0.4616	21.0	1.15	10	77	77	78	78	842.763	848.905	6.1420	6.0727	5.9898	6.0639	0.9864	-0.0167	1.7783	0.0044	
55	0.4616	21.0	1.15	10	77	77	79	80	848.905	854.993	6.0880	6.0025	5.9898	6.0639	0.9979	-0.0052	1.7734	-0.0006	
55	0.4616	21.0	1.15	10	77	77	80	81	854.993	861.126	6.1330	6.0357	5.9898	6.0639	0.9924	-0.0106	1.7701	-0.0038	
<b>AVERAGE</b>																0.9922	-0.0108	1.7739	0.0213
<b>METER COMPARISON CHECK (Yqa)</b>																$Y_{qa} = (C / Vm) \times \text{sqrt}(319 \times Tm \times 29 / (^Ha \times (Pb + (Havg / 13.6) \times Md))) \times \text{sqrt} \ ^H \text{ avg}$			
Yqa =		Run 1	Run 2	Run 3	Average														
		0.9893	0.9917	0.9968	0.9926														
<b>THERMOCOUPLE CALIBRATION</b>																			
DATE 9/3/2010																			
		<b>ASTM THERMOMETER</b>																	
		<b>TC-1 (DEG F)</b>																	
		<b>(DEG F)</b>																	
ICE	29	32																	
BOILING H2O	214	212																	
OIL	364	362																	
<b>NOZZLE CALIBRATION</b>																			
DATE 2/25/2011																			
READINGS IN (IN.)		<b>AVERAGE</b>																	
#20	0.625	0.626	0.625	0.6253															
<b>PITOT TUBE</b>		CP=.84 ACCORDING TO DESIGN SPECIFICATIONS																	

# Nozzle Calibration

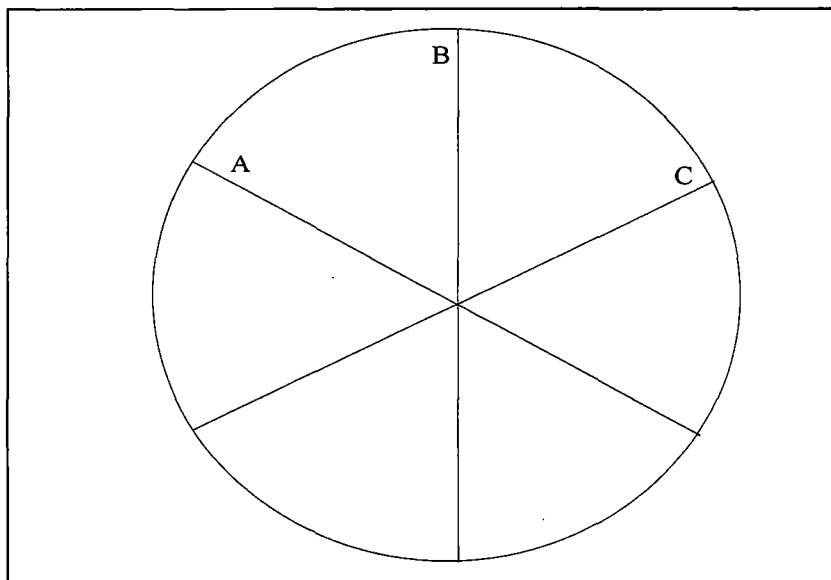
Nozzle ID #20

A = 0.625

B = 0.626

C = 0.625

Average 0.6253

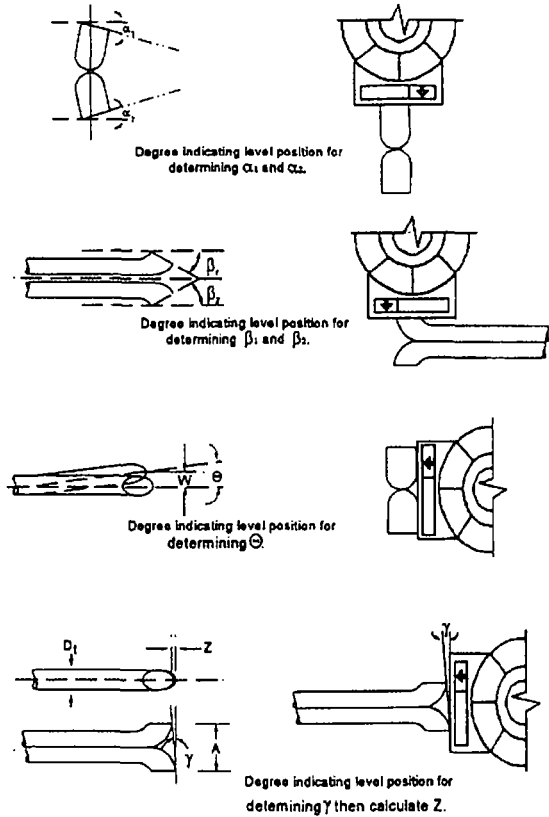


Calibration Date 2/25/2011

Calibrated by *NA*

# PITOT CALIBRATION

(Type S Pitot Tube Inspection)



Level and Perpendicular?	Yes
Obstruction?	No
Damaged?	No
$\alpha_1$ ( $-10^\circ \leq \alpha_1 \leq +10^\circ$ )	1
$\alpha_2$ ( $-10^\circ \leq \alpha_2 \leq +10^\circ$ )	0
$\beta_1$ ( $-5^\circ \leq \beta_1 \leq +5^\circ$ )	0
$\beta_2$ ( $-5^\circ \leq \beta_2 \leq +5^\circ$ )	0
Y	2
$\theta$	-1
$z = A \tan \gamma$ ( $\leq 0.125^\circ$ )	0.034
$w = A \tan \theta$ ( $\leq 0.03125^\circ$ )	-0.017
$D_t$ ( $3/16'' \leq D_t \leq +3/8''$ )	0.375
A	0.960
$A/2 D_t$ ( $1.05 \leq P_A / D_t \leq 1.51$ )	1.280

**Certification**

I hereby certify that type S pitot tube ID# P-5AC meets or exceeds all specifications, criteria and applicable design features, and is hereby assigned a pitot tube calibration factor of 0.84.

Certified by: *[Signature]*

Date: 9/3/2010



# LIQUID TECHNOLOGY CORPORATION

"INDUSTRY LEADER IN SPECIALTY GASES"

## Certificate of Analysis

Customer                      Coastal Air Consulting (Deland, FL)  
Date                              September 14, 2010  
Delivery Receipt            DR-30659  
Product:                        Nitrogen, CEMS Grade  
Lot Number:                   LTJ140-PG

### Mixture Specifications


Cylinder Number    EB-0026438

<u>Components</u>	<u>Requested</u>	<u>Actual</u>
Moisture	2.0 ppm	< 2.0 ppm
Hydrocarbons	0.1 ppm	< 0.1 ppm
Oxygen	1.0 ppm	< 1.0 ppm
Carbon Monoxide	1.0 ppm	< 1.0 ppm
Carbon Dioxide	1.0 ppm	< 1.0 ppm

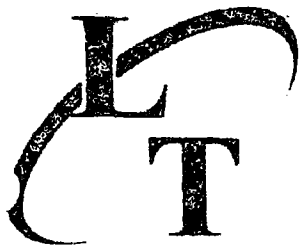
### Cylinder Data

Cylinder Valve:                      CGA 580  
Cylinder Volume:                    140 Cubic Feet  
Cylinder Pressure:                  2000 psig, 70°F  
Expiration Date:                      September 14, 2013

Certified by:

  
*Adam Strickland*

"UNMATCHED EXCELLENCE"



# LIQUID TECHNOLOGY CORPORATION

"INDUSTRY LEADER IN SPECIALTY GASES"

## Certificate of Analysis - EPA PROTOCOL GAS -

Customer Coastal Air Consulting (Deland, FL)  
Date July 23, 2010  
Delivery Receipt DR-30062  
Gas Standard 12.0 ppm Nitric Oxide, 25.0 ppm Carbon Monoxide/Nitrogen  
Final Analysis Date July 09, 2010  
Expiration Date July 09, 2012 **DO NOT USE BELOW 150 psig**

### Analytical Data:

EPA Protocol, Section No. 2.2. Procedure G-1.

### Reported Concentrations:

Nitric Oxide: 11.8 ppm +/- 0.11 ppm  
Carbon Monoxide: 25.4 ppm +/- 0.25 ppm

Nitrogen: Balance

Total NOx: 12.1 ppm

\*\* Total NOx for Reference Use Only \*\*

### Reference Standards

SRM/GMIS	GMIS	GMIS
Cylinder Number:	EB-0023453	CC-233168
Concentration:	24.16 ppm NO/Nitrogen	50.67 ppm CO
Expiration Date:	05/24/12	02/12/12

### Certification Instrumentation

Component:	Nitric Oxide	Carbon Monoxide
Make/Model:	Horiba - CLA 510	Nicolet-NEXUS 470
Serial Number:	43331870031	AEP99000154
Principal of Measurement:	Chemiluminescence	FTIR
Last Calibration:	June 14, 2010	July 07, 2010

### Cylinder Data

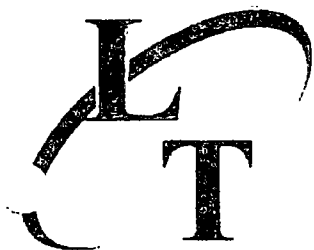
Cylinder Number:	EB-0014644	Cylinder Volume:	140 Cubic Feet
Cylinder Outlet:	CGA 660	Cylinder Pressure:	2000 psig, 70°F
Expiration Date:	July 09, 2012		

Analytical Uncertainty and NIST Traceability are in compliance with EPA-600/R-97/121.

Certified by:

Adam Strickland

"UNMATCHED EXCELLENCE"



# LIQUID TECHNOLOGY CORPORATION

"INDUSTRY LEADER IN SPECIALTY GASES"

## Certificate of Analysis - EPA PROTOCOL GAS -

Customer Coastal Air Consulting (Deland, FL)  
Date September 14, 2010  
Delivery Receipt DR-30659  
Gas Standard 23.5 ppm Nitric Oxide, 47.5 ppm Carbon Monoxide/Nitrogen  
Final Analysis Date September 07, 2010  
Expiration Date September 07, 2012 **DO NOT USE BELOW 150 psig**

Analytical Data:  
EPA Protocol, Section No. 2.2, Procedure G-1.

**Reported Concentrations:**  
**Nitric Oxide: 21.7 ppm +/- 0.21 ppm**  
**Carbon Monoxide: 48.9 ppm +/- 0.48 ppm**  
**Nitrogen: Balance**  
**Total NOx: 22.2 ppm**

\*\* Total NOx for Reference Use Only \*\*

### Reference Standards

SRM/GMIS	GMIS	GMIS
Cylinder Number:	EB-0023453	CC-233168
Concentration:	24.16 ppm NO/Nitrogen	50.67 ppm CO
Expiration Date:	05/24/12	02/12/12

### Certification Instrumentation

Component:	Nitric Oxide	Carbon Monoxide
Make/Model:	Horiba CLA - 510	Horiba - VIA 510
Serial Number:	43331870031	UUBKWXVYV
Principal of Measurement:	Chemiluminescence	NDIR
Last Calibration:	August 10, 2010	August 10, 2010

### Cylinder Data

Cylinder Number:	EB-0026213	Cylinder Volume:	136 Cubic Feet
Cylinder Outlet:	CGA 660	Cylinder Pressure:	1950 psig, 70°F
Expiration Date:	September 07, 2012		

Analytical Uncertainty and NIST Traceability are in compliance with EPA-600/R-97/121.

Certified by:

  
Adam Strickland

"UNMATCHED EXCELLENCE"





# LIQUID TECHNOLOGY CORPORATION

"INDUSTRY LEADER IN SPECIALTY GASES"

## Certificate of Analysis **- EPA PROTOCOL GAS -**

<u>Customer</u>	<u>Coastal Air Consulting (Deland, FL)</u>
<u>Date</u>	<u>September 14, 2010</u>
<u>Delivery Receipt</u>	<u>DR-30659</u>
<u>Gas Standard</u>	<u>8.00-10.0% CO2, 11.0-13.0% Oxygen/Nitrogen-EPA PROTOCOL</u>
<u>Final Analysis Date</u>	<u>August 30, 2010</u>
<u>Expiration Date</u>	<u>August 30, 2013</u>

<u>Component</u>	<u>Carbon Dioxide, Oxygen</u>
<u>Balance Gas</u>	<u>Nitrogen</u>

Analytical Data: **DO NOT USE BELOW 150 psig**  
EPA Protocol, Section No. 2.2, Procedure G-1

Reported Concentrations  
**Carbon Dioxide: 8.98% +/- 0.08%**  
**Oxygen: 12.0% +/- 0.12%**  
**Nitrogen: Balance**

### Reference Standards:

SRM/GMIS:	GMIS/GMIS	GMIS
Cylinder Number:	CC-159114/CC-165377	CC-231332
Concentration:	7.11% CO2/N2-10.05% CO2/Nitrogen	10.1% Oxygen/Nitrogen
Expiration Date:	04/04/11 - 04/06/11	03/04/11

### Certification Instrumentation


Component:	Carbon Dioxide	Oxygen
Make/Model:	Agilent 7890A	Servomex 244a
Serial Number:	CN10736166	1847
Principal of Measurement:	GC-TCD	Paramagnetic
Last Calibration:	August 10, 2010	August 10, 2010

### Cylinder Data

Cylinder Serial Number:	EB-0026459	Cylinder Outlet:	CGA 590
Cylinder Volume:	139 Cubic Feet	Cylinder Pressure:	1850 psig, 70°F

Analytical Uncertainty and NIST Traceability are in compliance with EPA-600/R-97/121.

Certified by:

  
Adam Strickland

"UNMATCHED EXCELLENCE"

# Liquid Technology Corporation

Industry Leader in Specialty Gases, Equipment and Service

## Certificate of Analysis

### - EPA PROTOCOL GAS -

Customer Coastal Air Consulting (Deland, Florida)  
Date November 14, 2008  
Delivery Receipt DR-23098  
Gas Standard 17.0-18.0% CO<sub>2</sub>, 22.0-23.0% Oxygen/Nitrogen-EPA PROTOCOL  
Final Analysis Date November 14, 2008  
Expiration Date November 14, 2011

Component Carbon Dioxide, Oxygen  
Balance Gas Nitrogen

Analytical Data: DO NOT USE BELOW 150 psig  
EPA Protocol, Section No. 2.2, Procedure G-1

### Reported Concentrations

**Carbon Dioxide: 17.27% +/- 0.17%**

**Oxygen: 22.62% +/- 0.22%**

**Nitrogen: Balance**

### Reference Standards:

SRM/GMIS:	GMIS	GMIS/GMIS
Cylinder Number:	CC-79616	CC-125554 CC-85469
Concentration:	17.4% CO <sub>2</sub> /Nitrogen	20.99% O <sub>2</sub> /N <sub>2</sub> - 25.30% Oxygen/N <sub>2</sub>
Expiration Date:	12/01/12	04/02/11 - 08/09/10

### Certification Instrumentation

Component:	Carbon Dioxide	Oxygen
Make/Model:	Hewlett Packard 5890 II	Servomex 244a
Serial Number:	3336A59393	1847
Principal of Measurement:	TCD	Paramagnetic
Last Calibration:	November 05, 2008	November 10, 2008

### Cylinder Data

Cylinder Serial Number:	CC-231467	Cylinder Outlet:	CGA 590
Cylinder Volume:	140 Cubic Feet	Cylinder Pressure:	2000 psig, 70°F

Analytical Uncertainty and NIST Traceability are in compliance with EPA-600/R-97/121.

Certified by:   
Date: November 14, 2008

**Unmatched Excellence**

# Liquid Technology Corporation

Industry Leader in Specialty Gases, Equipment and Service

## Certificate of Analysis

### - EPA PROTOCOL GAS -

Customer Coastal Air Consulting (Deland, Florida)  
Date Julv 22, 2009  
Delivery Receipt DR-25422  
Gas Standard 100.0 ppm Carbon Monoxide/Nitrogen - EPA PROTOCOL  
Final Analysis Date July 22, 2009  
Expiration Date Julv 22, 2012

Component Carbon Monoxide  
Balance Gas Nitrogen

Analytical Data: DO NOT USE BELOW 150 psig  
EPA Protocol, Section No. 2.2. Procedure G-1

### Replicate Concentrations

**Carbon Monoxide: 102.0 ppm +/- 1.0 ppm**

**Nitrogen: Balance**

### Reference Standards:

SRM/GMIS: GMIS  
Cylinder Number: CC-233156  
Concentration: 104.91 ppm CO/Nitrogen  
Expiration Date: April 16, 2011

### Certification Instrumentation

Component: Carbon Monoxide  
Make/Model: Nicolet - NEXUS 470  
Serial Number: AEP99000154  
Principal of Measurement: FTIR  
Last Calibration: July 02, 2009

### Cylinder Data

Cylinder Serial Number: CC-233184      Cylinder Outlet: CGA 350  
Cylinder Volume: 140 Cubic Feet      Cylinder Pressure: 2000 psig, 70°F  
Analytical Uncertainty and NIST Traceability are in compliance with EPA-600/R-97/121.

Certified by:



Mike Duncan

**Unmatched Excellence**

**Attachment F - Project Participants**

## **Project Participants**

### **Arlington Environmental Services, Inc.**

William Arlington  
Project Director

Rufus Roden  
Field Technician

Noah Handley  
Laboratory Analyst

Gina Meegan  
Computer Analysis

### **US Cremation Equipment**

Luis Llorens  
Project Manager

Luis del Pino  
Visible Emission Evaluator Certification Attached

# VISIBLE EMISSIONS EVALUATOR

This is to certify that

**LUIS DEL PINO**

STUDENT ID NUMBER DEL587412

met the specifications of Federal Reference Method 9 and qualifies as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, NC. This certificate is valid for six months from date of issue.

**391226**

CERT NUMBER

**2/2/2011**

DATE OF SCHOOL

**ORLANDO, FL**

SCHOOL LOCATION

**8/4/2011**

CERTIFICATION EXP DATE

**ORLS10**

LAST LECTURE

*Jody Monk*

Director of Training

## EASTERN TECHNICAL ASSOCIATES

**LUIS DEL PINO**

**DEL587412** STUDENT ID NUMBER

met the specifications of Federal Reference Method 9 and qualifies as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, NC. This certificate is valid for six months from date of issue and expires on the date below.

**ORLANDO, FL**

SCHOOL LOCATION

**2/2/2011**

DATE OF SCHOOL

**391226**

CERT NUMBER

**ORLS10**

LAST LECTURE

**8/4/2011**

CERTIFICATION EXP DATE

BEARER

Customer Support

Debbie Scalise

[debbie@smokeschool.com](mailto:debbie@smokeschool.com)

Want to know when we will  
be in your area? Join our  
emailing list at  
[www.smokeschool.com](http://www.smokeschool.com)

919-878-3188

**Attachment G - Retention Time Calculations**

## RETENTION TIME CALCULATION

### CORRECTION FOR QUENCHED AIR AT OUTLET

PLANT: US Cremations  
SOURCE: Model 75/300  
LOCATION: Lakeland  
DATE: 2/25/2011  
Test: Run 1  
CHARGE RATE: 75 lb

Stack Temperature °F 1147.3  
Afterburner Temperature °F 1646.4  
Ambient Temperature °F 85  
Stack Flow Rate (scfm dry) 539

Secondary Chamber Percent Flow 68.04%  
Secondary Chamber Flow (scfm dry) 366.6  
Secondary Chamber Flow @ 1800 °F 1569.0  
Secondary Chamber Volume (cu.ft.) 28.9  
Retention Time @ 1800 °F 1.11

Secondary Chamber Percent Flow = 
$$\frac{\text{Stack Flow Rate} \times (\text{Stack Temperature} - \text{Ambient Temperature})}{(\text{Afterburner Temperature} - \text{Ambient Temperature})}$$

Secondary Chamber Flow (scfm dry) = Stack Flow Rate (scfm dry) X Secondary Chamber Percent Flow

Secondary Chamber Flow @ 1800 °F = Secondary Chamber Flow (scfm dry) X (1800+460) / 528

Retention Time @ 1800 °F = 
$$\frac{\text{Secondary Chamber Volume (cu.ft.)} \times 60}{\text{Secondary Chamber Flow @ 1800 °F}}$$



## RETENTION TIME CALCULATION

### CORRECTION FOR QUENCHED AIR AT OUTLET

**PLANT:** US Cremations  
**SOURCE:** Model 75/300  
**LOCATION:** Lakeland  
**DATE:** 2/25/2011  
**Test:** Run 2  
**CHARGE RATE:** 69 lb

Stack Temperature °F 1147.3  
Afterburner Temperature °F 1647.3  
Ambient Temperature °F 85  
Stack Flow Rate (scfm dry) 557

Secondary Chamber Percent Flow 67.99%  
Secondary Chamber Flow (scfm dry) 378.9  
Secondary Chamber Flow @ 1800 °F 1621.8  
Secondary Chamber Volume (cu.ft.) 28.9  
Retention Time @ 1800 °F 1.07

Secondary Chamber Percent Flow = 
$$\frac{\text{Stack Flow Rate} \times (\text{Stack Temperature} - \text{Ambient Temperature})}{(\text{Afterburner temperature} - \text{Ambient Temperature})}$$

Secondary Chamber Flow (scfm dry) = Stack Flow Rate (scfm dry) X Secondary Chamber Percent Flow

Secondary Chamber Flow @ 1800 °F = Secondary Chamber Flow (scfm dry) X (1800+460) / 528

Retention Time @ 1800 °F = 
$$\frac{\text{Secondary Chamber Volume (cu.ft.)} \times 60}{\text{Secondary Chamber Flow @ 1800 °F}}$$

## RETENTION TIME CALCULATION

### CORRECTION FOR QUENCHED AIR AT OUTLET

**PLANT:** US Cremations  
**SOURCE:** Model 75/300  
**LOCATION:** Lakeland  
**DATE:** 2/25/2011  
**Test:** Run 3  
**CHARGE RATE:** 75 lb

Stack Temperature °F 1087.44  
Afterburner Temperature °F 1650.33  
Ambient Temperature °F 85  
Stack Flow Rate (scfm dry) 585

Secondary Chamber Percent Flow 64.04%  
Secondary Chamber Flow (scfm dry) 374.7  
Secondary Chamber Flow @ 1800 °F 1603.7  
Secondary Chamber Volume (cu.ft.) 28.9  
Retention Time @ 1800 °F **1.08**

Secondary Chamber Percent Flow = 
$$\frac{\text{Stack Flow Rate} \times (\text{Stack Temperature} - \text{Ambient Temperature})}{(\text{Afterburner temperature} - \text{Ambient Temperature})}$$

Secondary Chamber Flow (scfm dry) = Stack Flow Rate (scfm dry) X Secondary Chamber Percent Flow

Secondary Chamber Flow @ 1800 °F = Secondary Chamber Flow (scfm dry) X (1800+460) / 528

Retention Time @ 1800 °F = 
$$\frac{\text{Secondary Chamber Volume (cu.ft.)} \times 60}{\text{Secondary Chamber Flow @ 1800 °F}}$$

*Attachment 2*  
*Equipment Drawings and Brochures*

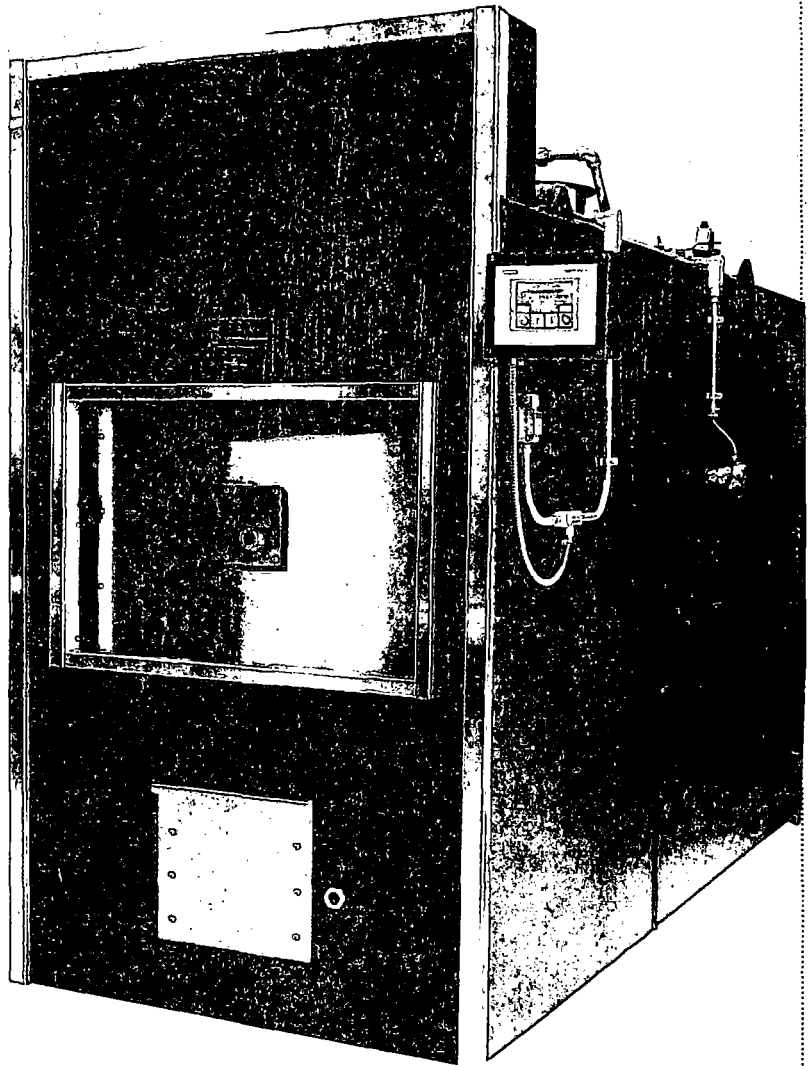
# US 75/300 Animal Cremator

**DESIGNED** primarily for random-load individual pet cremations the 75/300 can also serve as a batch load incinerator.

**RATED** at 75 lbs/hr with a single load capacity of 300 lbs this compact and fuel efficient unit is ideal for animal clinics, animal hospitals, veterinarians, pet cemeteries, humane societies and pet cremation service facilities.

**EQUIPPED** with more standard features than any other animal cremator in its price and size range, the 75/300 easily outperforms competitive makes.

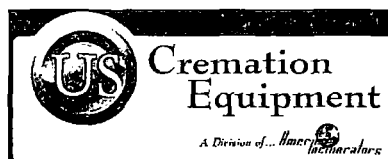
**AUTOMATIC** operation through a Programmable Logic Controller (PLC) with a Color Touch Screen Interface is standard.



Model US 75/300  
Animal Cremator



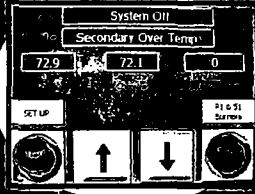
*"Whether a first time buyer, replacing or adding equipment... we're there before, during and most importantly after the sale. And, we wouldn't have it any other way."— Cal Wilkerson*



370 S. North Lake Blvd., Ste. 1004 • Altamonte Springs, FL 32701  
Ph: 321.282.7357 • Fax: 321.282.7358 • [www.uscremationequipment.com](http://www.uscremationequipment.com) • E-mail: [info@uscremationequipment.com](mailto:info@uscremationequipment.com)

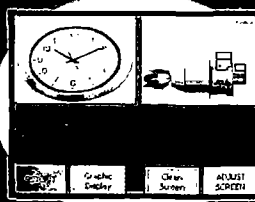
## User-friendly Operating System W/Touch Screen

Operating conditions are displayed on various screens for monitoring and control during each stage of the cremation



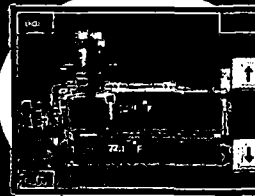
### Main Screen

Displays Start, Stop and Advance cycle controls along with Door Up and Door Down. Also displays Stage of Process and Chamber temperatures



### Time and Temperature Adjustment Screen

Elapsed time is displayed along with operating temperature and adjustment controls.



### Temperature and Burner Status Screen

Displays High fire or Low fire, Off and Reset.

U.S. Cremation Equipment offers a complete line of cremation supplies, replacement parts for all makes, service, repairs, technical support, and training

## US MODEL 75/300 ANIMAL CREMATOR:

Nearly identical in features and performance to U.S. Cremation Equipment's "Classic" human cremator except for size, this front load/front cleanout unit offers increased productivity, faster cremation cycles and lower fuel consumption. Complete combustion is achieved in the Pollution Control Chamber eliminating smoke and odor.

### Features:

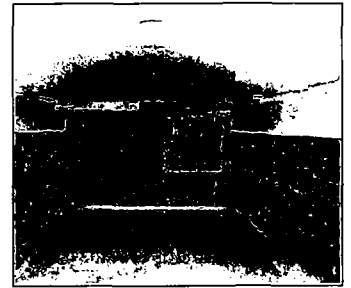
- Power Charging Door
- Primary Chamber View Port
- 3000° Hot Hearth
- Secondary Chamber View Ports
- Loading Cart
- PLC Operating System
- Color Touch Screen Interface
- Powder Coat Paint Exterior
- Refractory Lined Draft Inducer
- Refractory Lined Stack
- Opacity Sensor
- Operating Tools
- Two Year Limited Warranty

### Model Specifics:

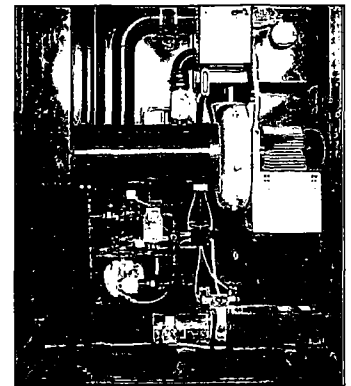
Height: 7'-6 3/4" (2.3m)  
Width: 4'-0" (1.22m)  
W/Color Touch Screen 4'-11" (1.5m)  
Length 10'-8" (3.25m)  
Weight: 10,500 lbs (4762kg)  
Electrical: 208-220 Volts, 50/60 Hz,  
Single or 3 Phase

### System Requirements:

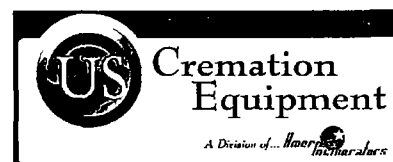
Fuel: Natural Gas or LP (Propane) Gas  
(Diesel Fuel Available)  
Pressure: NG 7" to 9" (1778mm to 2286mm)  
W.C. LPG 11" (2794mm) W.C.  
Flow: 1,500,000 BTU/hr (connect to a 1 1/2" header)  
Make Up Air: 1700 CFM (48 CMM) 24" x 24"  
(6096mm x 6096mm)  
Clearances: 2 ft (6096mm) Top and Sides; 3 ft (9144mm) Rear



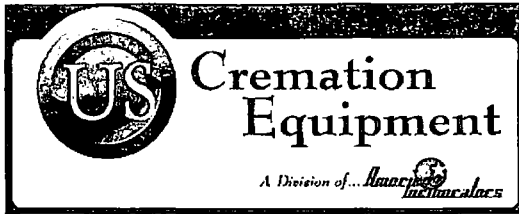
Temperature controlled chamber is sized to accommodate batch loads.



Rear Compartment houses major components for easy access and maintenance.



370 S. North Lake Blvd., Ste. 1004  
Altamonte Springs, FL 32701  
Ph: 321.282.7357 • Fax: 321.282.7358  
www.uscremationequipment.com  
E-mail: info@uscremationequipment.com



## ANIMAL CREMATION CHAMBER SPECIFICATION

### Model US 75/300

---

#### EQUIPMENT:

U.S. Cremation Equipment, a division of American Incinerators Corporation - Multiple Chambered Animal Cremator; Natural Gas, Propane (LP) or Oil fired.

#### MANUFACTURER:

U.S. Cremation Equipment a division of American Incinerators Corporation.

#### CONSTRUCTION STANDARDS:

The cremator shall be constructed of U.L./CSA listed components and will meet or exceed nationally accepted incinerator construction standards per the Incinerator Institute of America (IIA) publication guidelines; i.e.:

- A. Primary chamber will not exceed 60% of total furnace volumes. Flue connection shall not be considered part of furnace volume.
- B. Flame supervision through continuous ultraviolet scanning flame detectors on all burners.
- C. High temperature refractory construction with air-cooled walls to prevent excessive heat radiation.
- D. Exhaust gas temperature reduction.

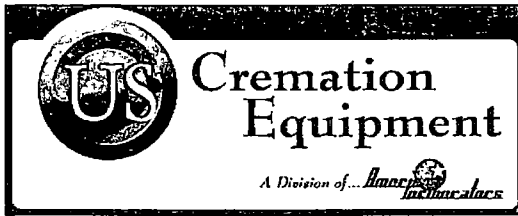
#### CREMATOR DIMENSIONS:

Chamber volumes:	Primary - 28.5 CF	(0.80 CM)
	Secondary - 28.9 CF	(0.82 CM)
Primary Chamber:	62" L x 30 1/2" W x 27 1/4" H	(1575 mm x 775 mm x 692 mm)
Structural footprint:	120" L x 48" W	(3048 mm x 1219 mm)
Over-all dimensions:	128" L x 48" W (59" W/Touch Screen) x 88 3/4" H	(3251 mm L x 1219 mm W (1499 mm W/Touch Screen) x 2254 mm H)

#### OPERATING TEMPERATURE:

Temperatures are determined as a result of federal, state or local permitting authority operating standards.

Typical primary chamber setting:	1,000°F-1,200°F (538 C - 648 C)
Typical secondary chamber setting:	1,400°F-1,800°F (760 C - 982 C)



**RETENTION TIME:**

In excess of 1 second.

**CAPACITY RATING:**

75 lb/hr for type 4 waste. Single load capacity of 300 lbs per cremation cycle

**DRAFT:**

Induced via refractory lined draft inducer.

**SHIPPING WEIGHT:**

10,500 lbs. (4762kg)

**EMISSIONS:**

The U. S. Cremation Equipment animal cremator shall meet or exceed federal, state/province and local environmental regulations.

**EMISSION CONTROL:**

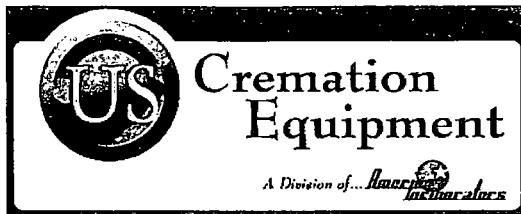
Secondary chamber equipped with one, 1,000,000 BTU/HR burner. Also equipped with an electronic exhaust gas scanner system which temporarily suspends operation of the primary chamber burner if the opacity of the exhaust gases reach 20%.

**STEEL CONSTRUCTION SPECIFICATIONS:**

- A. The structure to be heavy 3" steel angle , square tube; 3/8" steel plate, seal welded construction.
- B. Subfloor to be 3/16" steel plate, seal welded construction.
- C. The exterior shell to be 12 gauge steel removable panels.
- D. Interior shell to be 10 gauge steel, seal welded construction.

**INSULATION & REFRACTORY SPECIFICATIONS:**

- A. Hot Hearth: 3000°F abrasion resistant castable refractor monolithic cast 7" - 13" thick, 1 -1/2" recessed top and rounded, stressed arched bottom.



- B. Chamber Floors: 3000°F abrasion resistant castable refractory, 5" thick on top of 2" 2400°F light weight insulating castable.
- C. Chamber Ceilings: 3000°F castable refractory, monolithic cast, rounded, stressed arched, 5"-9" thick, topped by 2" 2400°F light weight insulating castable.
- D. Interior Walls: 2800°F. castable refractory, 4 1/2" x 9", all chambers are backed by 2" of 1900°F ceramic fiber insulation
- E. Stack: Lined with 2" of 2200°F insulating refractory.

**SKIN TEMPERATURE CONTROL:**

Integral dual casing, completely air-cooled design to prevent excessive heat radiation.

**COMBUSTION EQUIPMENT:**

- A. Combustion Air - One (1) single phase, 208-230/460V, 17-15.5/7.6 amp, 5 hp air-blower motor (1200 CFM/34 CMM). Three Phase available.
- B. Primary Chamber - One 500,000 BTU/HR nozzle mix, gas-fired burner. Eclipse, North American, or equal.
- C. Secondary Chamber - One, 1,000,000 BTU/HR modulating, nozzle mix, gas-fired burner. Eclipse, North American, or equal.
- D. Burner Flame Safeguard - Control supervision on each burner via a flame safeguard relay and ultra-violet scanner.
- E. Low Air Pressure Safety Switch - Interlocked to all burners.

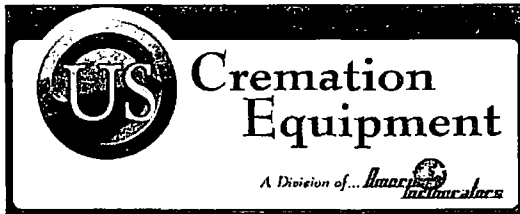
**EXHAUST GAS TEMPERATURE REDUCTION:**

Hot air duct operating exit temperature: 900° F (482 C)

**HOT AIR DUCT:**

10 gauge carbon steel, high temperature 2" refractory lining, pre-drilled flanges, 20" Outside Diameter, 23" at flanges.





**UTILITY REQUIREMENTS:**

A. **GAS:**

1. Pressure:
  - a) Natural Gas: 7" to 9" W.C. (178 mm to 228 mm)
  - b) Propane: 11" W.C. (288 mm)
2. Flow Rate: 1,500,000 BTU/hr

B. **ELECTRICAL:**

1. One (1) single phase or 3 Phase, 208-230 Volts, 50/60 Hz for 5 hp air blower.

**CREMATION CHAMBER LOADING/CLEAN-OUT DOOR:**

Hydraulically operated, refractory lined, upward movement guillotine style door  
W/Primary Chamber View Port

**CREMATION PROCESS CONTROL:**

The cremation cycle is controlled by a programmable logic control (PLC) system. A visual confirmation of the system status is provided through control panel indicator lights and digital temperature display. Continuous fuel and air modulation is automatically controlled by a time/temperature actuated system. Operator interface is through two sets of simple push button controls and panel timer.

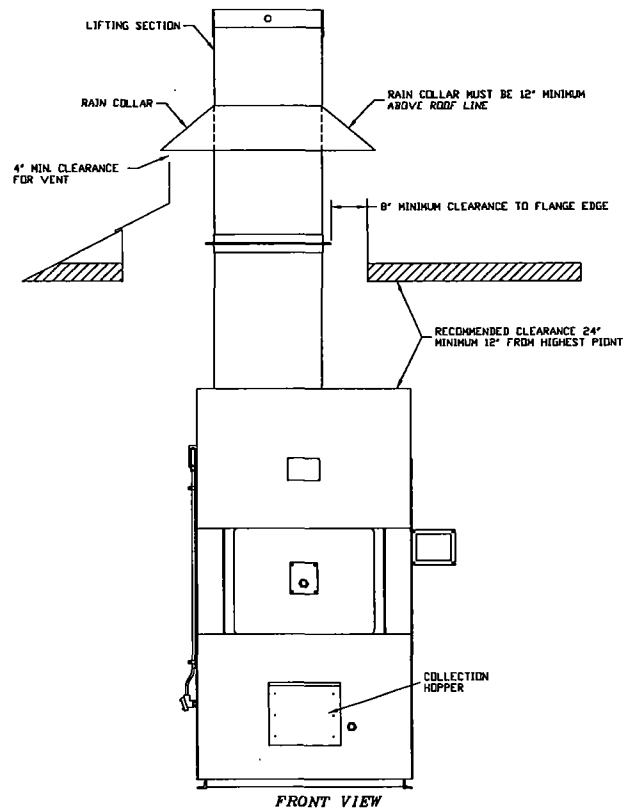
**EXTERIOR FINISH:**

The cremation chamber is finished with grey hi-resistance powder coating. Back and top of unit is coated with epoxy type black paint. Loading door is trimmed in stainless steel.

**"ANIMAL CREMATOR MODEL US 73/300  
RECOMMENDED CLEARANCE FOR  
CREMATORS STACK AND ROOF  
PENETRATION**

ITEM QTY

DESCRIPTION



- NOTES:  
 1) USE NON - COMBUSTIBLE LINER AND MATERIALS.  
 2) CONSULT LOCAL BUILDING CODES AND ORDINANCE FOR ANY RESTRICTIONS WHICH MAY APPLY.  
 3) NON - COMBUSTIBLE FLASHING TO BE PROVIDED BY OTHERS.  
 4) AIR LOUVER TO ALLOW APPROXIMATELY 2500 CFM FREE AIR.  
 5) GAS REGULATOR TO PROVIDED BY OTHERS FOLLOWING INSTALLATION MANUAL INSTRUCTIONS.

CLEARANCES	RECOMMENDED	MINIMUM
REAR OF UNIT	36"	24"
SIDE	24"	24"
SIDE WITH CONTROL PANEL	36"	24"
TOP (AT HIGHEST POINT)	24"	12"
STACK (TO FLANGE EDGE)	10"	8"
38" MINIMUM DIAMETER OPENINGS REQUIRED FOR PROPER STACK CLEARANCE		

VENTING IS CRITICAL AND MANDATORY  
CONSULT A QUALIFIED ENGINEER

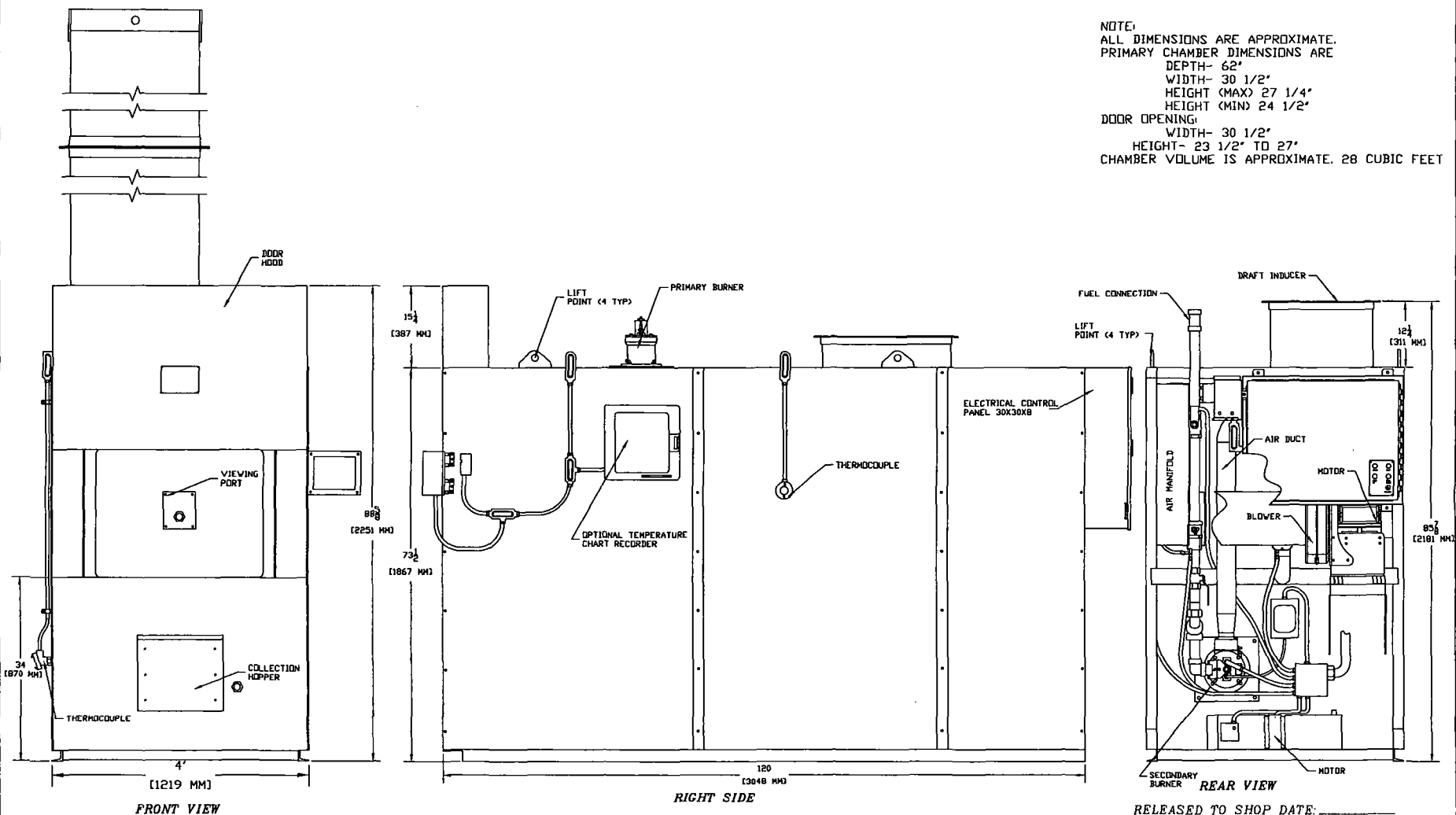
RELEASED TO SHOP DATE: \_\_\_\_\_

		US CREMATION EQUIPMENT ANIMAL CREMATOR ROOF PENETRATION	
DATE DESCRIPTION QTY	PRICE TOTAL	ORDER NO. DATE	MODEL NO. SERIAL NO.

ANIMAL CREMATOR US MODEL US 75/300

ITEM	QTY	DESCRIPTION
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NOTE:  
 ALL DIMENSIONS ARE APPROXIMATE.  
 PRIMARY CHAMBER DIMENSIONS ARE  
 DEPTH- 62"  
 WIDTH- 30 1/2"  
 HEIGHT (MAX) 27 1/4"  
 HEIGHT (MIN) 24 1/2"  
 DOOR OPENING:  
 WIDTH- 30 1/2"  
 HEIGHT- 23 1/2" TO 27"  
 CHAMBER VOLUME IS APPROXIMATE. 28 CUBIC FEET



RELEASED TO SHOP DATE: \_\_\_\_\_

			US CREMATION EQUIPMENT	
ANIMAL CREMATOR FRONT, RIGHT & REAR VIEWS			US 75/300	
614			3/4" x 3/4" x 3/4"	

*Attachment 2*  
*Emissions Calculations*

## US Cremation Equipment Model US 75/300 Animal Crematory

Equipment	Pounds Incinerated Per Hour (Average)	Hours Per Year	SO2 lb/ton	SO2 lb/hr	SO2 TPY	Nox lb/ton	Nox lb/hr	Nox TPY	TOC lb/ton	TOC lb/hr	TOC TPY	PM lb/hr	PM TPY	CO lb/hr	CO TPY
US 75/300	75	8760	2.5	0.09375	0.410625	3	0.1125	0.49275	3	0.1125	0.49275	0.26	1.14	0.38	1.66

**CO=100 PPM @ 7% O2 based on manufacturers warranty**

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**PM = 0.08 gr/dscf based on manufacturers warranty**

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**US 75/300, CO is calculated as follows:**

75 lb/hr x 1E+01 lb/ton x 1 ton/2000 lbs = 0.38 lbs/hr CO  
0.38 lb/hr CO x 8760 hrs/yr x 1 ton/2000 lbs = 1.66 TPY CO

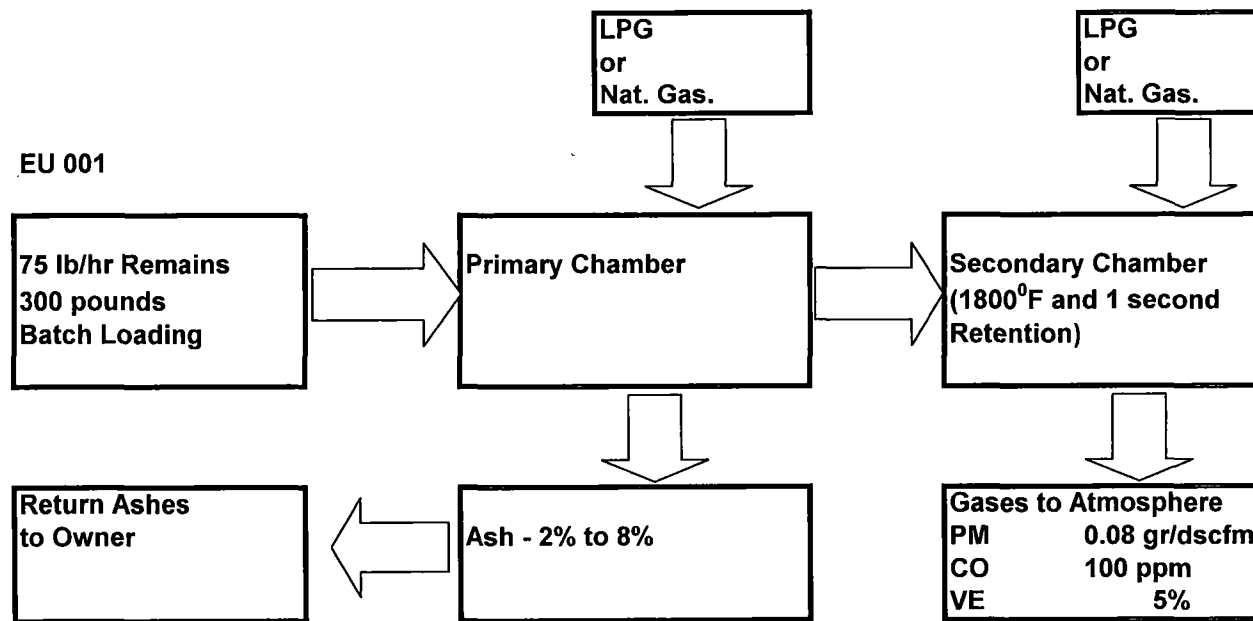
**US 75/300, PM is calculated as follows:**

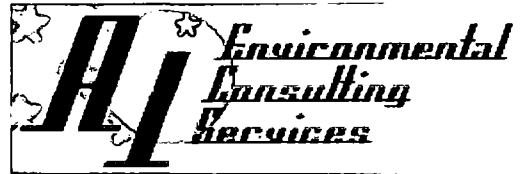
75 lb/hr x 7E+00 lb/ton x 1 ton/2000 lbs = 0.26 lbs/hr PM  
0.26 lb/hr PM x 8760 hrs/yr x 1 ton/2000 lbs = 1.14 TPY PM

*Attachment 4*  
*Process Flow Diagram*

Process Flow Diagram

Animal Crematory  
Model US 75/300





August 23, 2011

Florida Department of Environmental Protection  
FDEP Receipts  
PO Box 3070  
Tallahassee, FL 32315-3070

**Re: General Permit Application  
SW Myers Enterprises d.b.a. Sarasota Pet Crematory**

To whom it may Concern:

Enclosed is one (1) copy of the above referenced application along with a check made payable to the Florida Department of Environmental Protection in the amount of \$100.00 for the application fee.

I trust this application is complete; however, should you have any questions or need any additional information for issuing the general permit, please contact me at (407) 574-2021 or e-mail at AI@CFL.RR.COM .

Respectfully submitted,  
AI ENVIRONMENTAL CONSULTING SERVICES

Luis Llorens  
President/Project Manager

Enclosures: One (1) Application and check

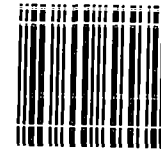




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R, January 2008

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Scott W. Myers  
226 Simmons Avenue, Sarasota, FL 34232

FLORIDA DEPT OF  
ENVIRONMENTAL PROT.  
TO: FDEP Receipts  
P.O. Box 3070  
Tallahassee, FL  
32315-3070