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Bureau of Air Monitoring & Mobile Sources

ANIMAL CREMATORY
AIR GENERAL PERMIT REGISTRATION FORM

Part II. Notification to Permitting Office

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

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

1030136-009

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.

XX 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.)

PET ANGEL WORLD SERVICES, LLC
DBA: PET ANGEL WORLD MEMORIAL CENTER
(FDEP FACILITY NO. 1030136)

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.)

PINELLAS PARK

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

Street Address: **6225 72ND AVE. NORTH**

City:**PINELLAS PARK** County: **PINELLAS** Zip Code:**33781**

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

NA

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: **SHARON MARTINACHE, REGIONAL MANAGER**

Owner/Authorized Representative Mailing Address
Organization/Firm: **PET ANGEL WORLD MEMORIAL CENTER**
Street Address: **6225 72ND AVE. NORTH**
City: **PINELLAS PARK** County: **PINELLAS** Zip Code: **33781**

Owner/Authorized Representative Telephone Numbers
Telephone: **727-548-1456** Fax: **727-545-3141**
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: **SAME AS ABOVE**

Facility Contact Mailing Address
Organization/Firm:
Street Address:
City: County: Zip Code:

Facility Contact Telephone Numbers
Telephone: Fax:
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.

Sharon Martinache
Signature

5/26/09
Date

Design Calculations

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

XX Manufacturer's' design calculations attached.

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

Description of Facility

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

This registration is for installation of a third animal crematory (EU003) at this location.

The new unit is a B & L Systems BLI-400/75 M Batch Load animal incinerator.

The BLI-400 is designed with four individual cremation chambers with a common afterburner. The total design combined incineration rate is 75 lb/hr. Each cremation chamber has a design maximum heat input rate of 0.25 MMbtu/hr. The maximum heat input rate of the afterburner is 0.5 MMbtu/hr. Fuel is natural gas.

Emissions are controlled by the afterburner that will maintain a minimum secondary chamber combustion zone temperature of 1600 Deg F prior to and during combustion of material in the primary chamber. The secondary chamber is designed to ensure one second residence time at a gas temperature of 1800 Deg F and is equipped with a continuous temperature monitor and recorder. The unit is equipped with an opacity monitor that will automatically shut down the primary burner if excess opacity is measured.

Incinerator, opacity monitor and residence time information is attached.

Existing EU 001 is a Crawford C500P Animal Crematory.

Existing EU 002 is an Industrial Equipment & Engineering Co (Matthews Cremation Group) Model Power Pak II animal Crematory.

Note: There was a general permit registration filed by this facility in early 2008 to install a Therm-Tec, Model S-27-T animal crematory. This unit was never installed.

CREMATORY AND OPACITY MONITOR INFORMATION

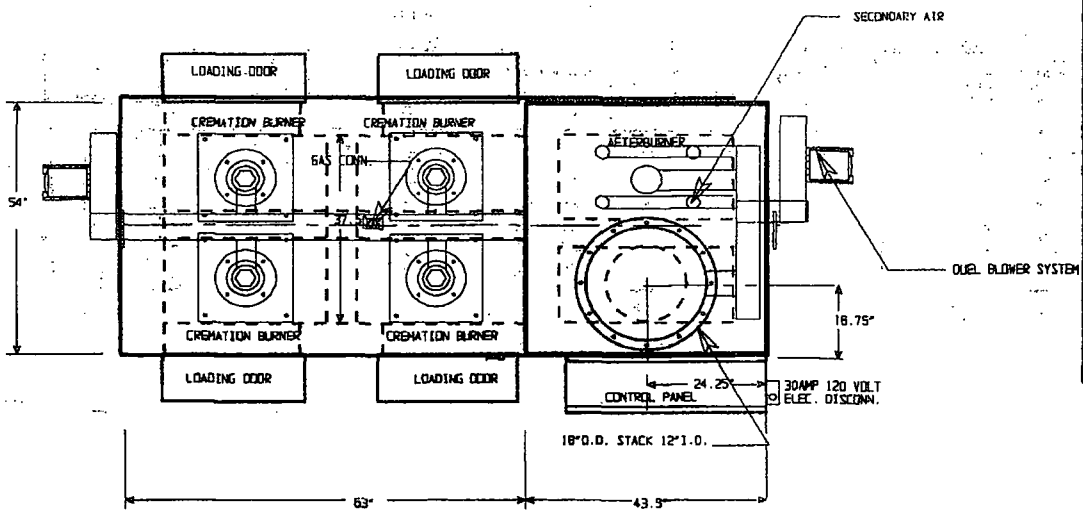
Cremation Systems, Inc.

7205 - 114th Avenue North Largo, Florida 33773 USA
1-800-622-5411 727-541-4666 Facsimile 727-547-0669
e-mail: sales@blcremationsystems.com www.blcremationsystems.com

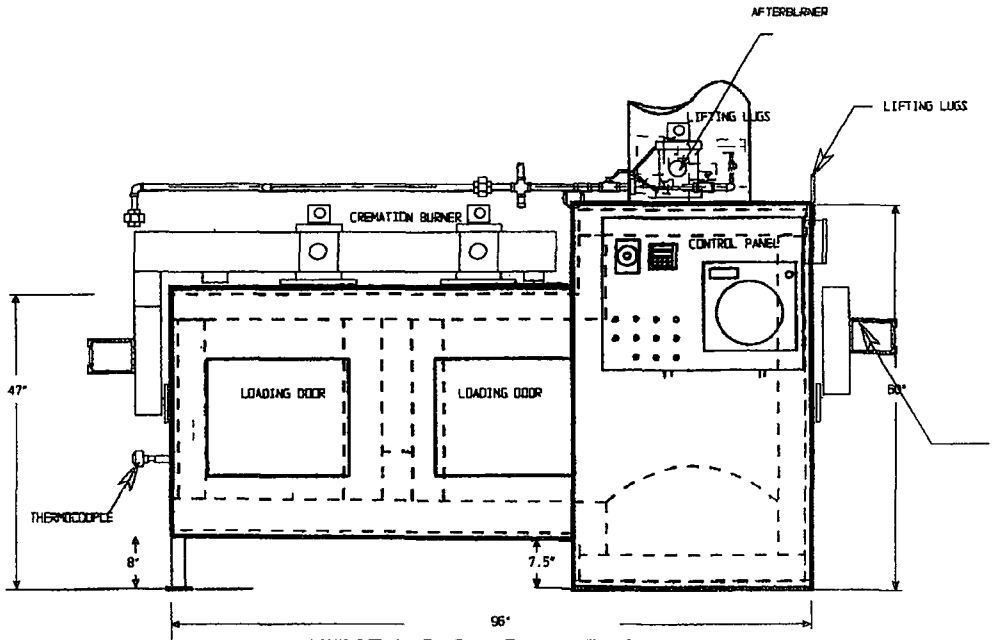
BLI-400/75 M *Batch-Load Incinerator*
SPECIFICATIONS

Dimensions:	Height: 60" (70" With Afterburner) Width: 40" (52" With Control Panel) Length: 84" (98" With Cremation Burner) Weight: 14,000 lbs. Approximate
Load Capacity Maximum:	400 lbs.
Cremation Rate:	75 lbs per hour
Chamber Dimensions:	30" Wide, 42" Long, 28" High 2 Cubic Feet
Stack Height:	15 Feet Refractory-Lined Stack – 18" O.D.
Refractory / Insulation:	4 ½" Firebrick – Walls Castable Refractory Lining – (Hearth & Ceiling) 1" 1900 Degree – Board Insulation
Power Requirements:	110 Volts, 1-Phase, 30 AMPS
Gas Pressure:	Natural Gas: 7" W.C. Propane: 11" W.C. Fuel Oil:
Burner Output:	
Maximum Input Rating:	1000,000 BTU's Per Hour
Afterburner Maximum:	500,000 BTU's Per Hour
Modulation Minimum:	100,000 BTU's Per Hour
Cremation Burners:	4 x 250,000 BTU's Per Hour Staged
Air Requirements:	Outside air inlet louvers in the Room located at or below Burner height, capable of Passing 2,500 CFM of free air

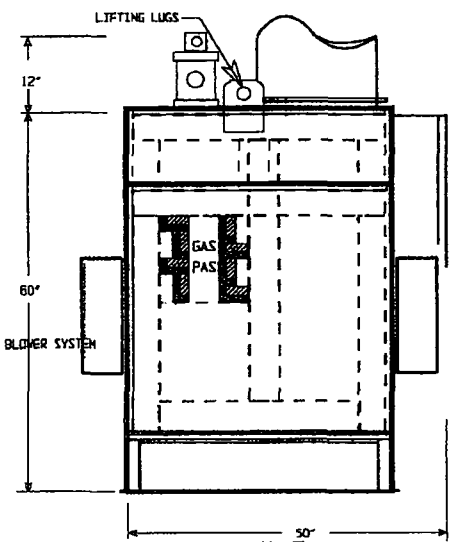
05/12/2009 TUE 15:10 FAX



PLAN VIEW



SECTION THRU CHAMBERS



FRONT ELEVATION

Systems, Inc.
7205 - 114th Avenue North • Largo, Florida 33773
1-800-622-9411 • 727-541-4666 • Facsimile 727-547-0669
e-mail: blcremsys@aol.com • www.blcremationsystems.com

BLI 400/75 MOD BATCH LOAD INCINERATOR

GENERAL MECHANICAL EQUIPMENT LAYOUT

SIZE	DATE: 8/1/07	DWG NO. BLI400/75-GL1	REV
SCALE		SHEET	

003/003

B&L CREMATION SYSTEMS, INC.

GENERAL PURPOSE OPACITY MONITOR

SPECIFICATIONS

LIGHT SOURCE: Pulsed visible LED

SPECTRAL RESPONSE: Between 400nm and 500 nm

ANGLE OF VIEW: Less than 4 degrees from axis

AMBIENT LIGHT: No measurable efect

MAXIMUM DISTANCE BETWEEN MONITOR AND REFLECTOR: 6 feet

MONITOR TYPE: Retro reflective using a 3" reflector

ADJUSTMENT RANGE: 0 TO 100% opacity

ACCURACY: +/- 3% of full scale

POWER: 24 VAC, less than 10 VA

OUTPUT: Relay, DPDT, 5.0 A @ 102 VAC
LED Indicator for sensitivity adjustment

TEMPERATURE: Storage, -7 degrees to 32 degrees C
Operating: -29 degrees to 66 degrees C

PHYSICAL: 8.000"H x 5.750"W x 3.375"D

ENCLOSURE: Meets NEMA 3, 4 and 12 specs

OPACITY MONITOR ADJUSTMENT PROCEDURE

The following procedure may be necessary to be performed from time to tome due to vibration on the top of the retort. This procedure is designed to be both simple and quick, and to insure the proper operation of your retort.

It is suggested that before starting, this procedure be carefully read, and if you have any questions, call the service department at B&L Cremation Systems. A service technician will be happy to answer any questions or assist you with the alignment/adjustment of your opacity monitor.

The best time to perform this procedure is on a cool retort.

Please check the cleanliness of the opacity monitor lens and reflector. Inspect the reflector for any damage, replacing it as necessary.

You will need the following tools.
6" adjustable wrench
7/16" wrench
A Phillips screwdriver
A small straight slot screwdriver
6' to 8' stepladder

Step 1. Open the electrical cabinet located on your retort. Inside, locate the "C1 BLOWER" contractor. At the bottom of the contactor, from left to right, you will see a red "STOP" button. To the right of this is a blue "RESET" button. Above this is a "TEST" slot (see fig. 1).

Step 2. Turn on the retort with the main timer set to zero. The "Cool Down" lamp should be illuminated.

Step 4. Next, it will be necessary to get on top of the retort. Inspect the opacity monitor, locating the red alignment L.E.D. and the sensitivity adjustment (see fig. 2). The red L.E.D. should be lit, and by passing your hand in front of the lens you should be able to hear the opacity monitor click. If you are experiencing minor nuisance tripping of the opacity system, turn the sensitivity adjustment CLOCKWISE approximately 1/8 turn. This should correct the problem. Now press the round blue "RESET" button located on the "C1 BLOWER" contactor in the electrical cabinet. Your retort is now ready to operate. If, however, the red L.E.D. is not illuminated or you do not hear the clicking when you pass your hand in front of the monitor, proceed to step 5.

Step 5: Turn the sensitivity adjustment FULLY CLOCKWISE. Loosen the two mounting bolts hold the opacity monitor. By slowly moving the opacity monitor (left or right, forward or backward), obtain the maximum brightness possible for the L.E.D. Carefully tighten one of the mounting bolts, using shims as necessary, then snug the remaining bolt. Do NOT tighten this bolt. Turn the sensitivity adjustment COUNTERCLOCKWISE until the monitor clicks. Turn the sensitivity adjustment CLOCKWISE until you hear the monitor click again, then continue CLOCKWISE an additional 1/8 turn. The opacity monitor is now correctly set. Press the round blue "RESET" button on the C1 BLOWER contactor, completing the alignment procedure. *Please note: if the circuit board is black, counterclockwise and clockwise are reversed. Counterclockwise will be clockwise and clockwise will be counterclockwise.*

If the L.E.D. does not illuminate, or if the monitor does not click, please contact the service department at B&L Cremations Systems to further assist you.

OPACITY MONITOR ADJUSTMENT PROCEDURE

FIGURE 1 "C1 BLOWER"

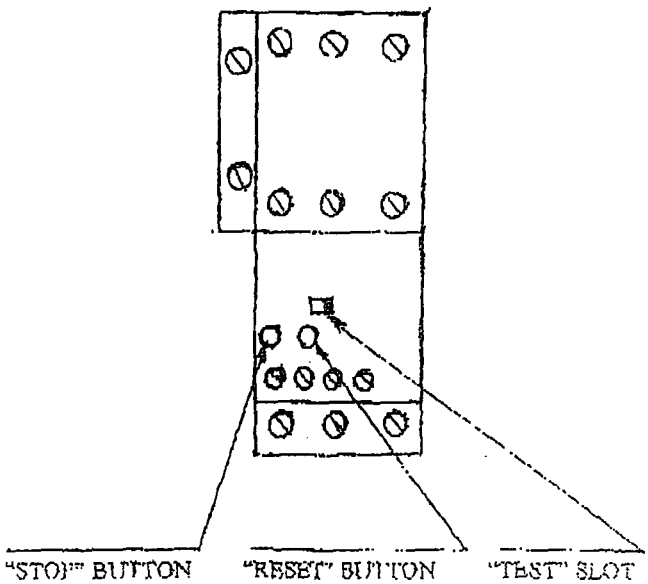
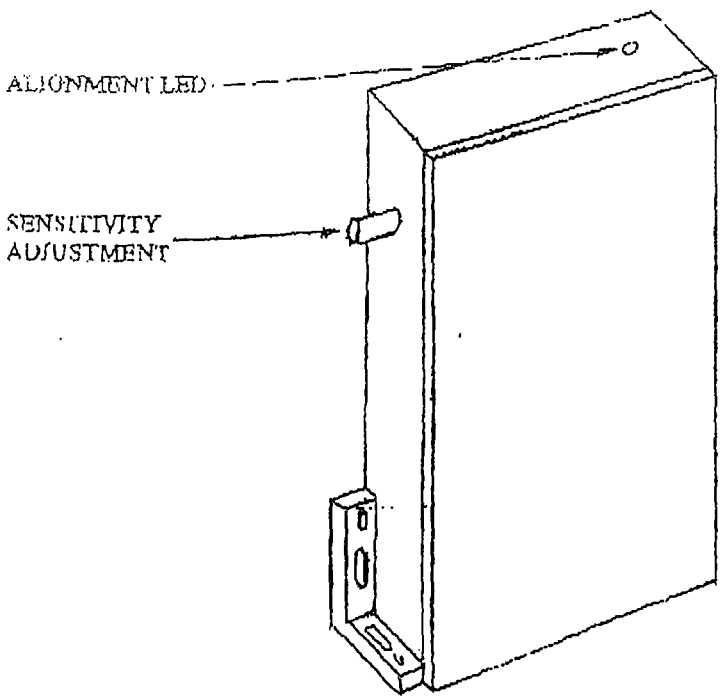


FIGURE 2, OPACITY MONITOR



7205 114TH Avenue North • Largo, Florida 33773
1-800-622-5411 • 727-541-4666 • Facsimile 727-547-0669

TEMPERATURE CONTROL SEQUENCE

A type "K" thermocouple is placed 19 – 20 ft^3 downstream of the afterburner flame tip to measure temperature. The downstream distance is determined based on residence time calculations. The temperature signal is sent to the main control panel where it is received by a FUJI PYZ series temperature controller with a digital readout and a Honeywell DR4200 temperature recorder. The temperature controller controls the temperature via a motorized butterfly valve located on the afterburner inlet gas assembly. Gas demand is controlled to maintain a steady temperature. The ignition/cremation burner is interlocked to the afterburner temperature by the temperature controller set point. Combustion cannot start until temperature set point is reached. Alarm contacts in the temperature controller are utilized for over (high) temperature conditions. 100° F over set point the afterburner will be in maximum low fire and the ignition/cremation burner will shut off. The butterfly valve located on the secondary air inlet is controlled by a separate temperature output to add air to cool the system. At set point the unit will return to normal operation. An optimonitor smoke detector is placed on the stack and set at 10% opacity. If emissions occur the alarm will sound, a visual red warning lamp located on the control panel will illuminate and the primary burners will shut off. The excess air butterfly valve will open to add air to the secondary chamber to oxidize the emissions. After a five (5) minute period the unit will revert to normal operations.

RESIDENCE TIME CALCULATIONS

CALCULATIONS FOR PRODUCTS OF COMBUSTION AND RESIDENCE TIME FOR B & L CREMATION SYSTEMS BLI400M, NATURAL GAS FIRED, 75 LB/HR, TYPE IV WASTE, ANIMAL CREMATORY

A. BASIS: 1 LB WASTE

1. $\frac{\text{1 lb waste} \times \text{1000 Btu/lb waste}}{\text{10,000 Btu / 15 lb air}}$ = 1.5 lbs air

2. $\frac{\text{1 lb waste} \times \text{0.10 lb combustible}}{\text{lb waste}}$ = 0.10 lbs of combustibles

3. $\frac{\text{1 lb waste} \times \text{0.85 lb H20} \times 1.6^{(1)}}{\text{lb waste}}$ = 1.36 lbs of water

4. $\frac{\text{6500 Btu aux fuel}^{(2)} \times \text{10 ft}^3 \text{ air/ft}^3 \text{ fuel}}{\text{1050 Btu/ft}^3 \text{ fuel} \times \text{13.35 ft}^3 \text{ air/lb air}_{@70°F}}$ = 4.64 lb of air for aux fuel

5. $\frac{\text{6500 Btu aux fuel} \times \text{0.044 lb fuel/ft}^3 \text{ fuel}}{\text{1050 Btu/ft}^3 \text{ fuel}}$ = 0.27 lb of aux. fuel

6. Sum = PRODUCTS OF COMBUSTION (POC) = 7.87 LBS POC PER LB OF WASTE @ 70 °F

B. RESIDENCE TIME @ 1800 °F

$$\frac{\text{7.87 lb POC/lb waste} \times \text{56.93 ft}^3\text{/lb POC}_{@1800\,°F} \times \text{75 lb waste/hr}}{\text{3600 sec/hr}}$$

= 9.3 ft^3/sec @1800 °F

= **9.3 ft^3 for 1 second residence time**

Thermocouple placement at: $\geq$10 ft^3
Secondary chamber operating temperature ≥ 1600 °F

(1) Correction multiplier for dry air and water vapor
(2) Fuel is natural gas

References: Incinerator Institute of America
North American Combustion Handbook

B&L Systems, Inc.

AIR GENERAL
PERMIT REGISTRATION

PET ANGEL WORLD MEMORIAL CENTER

Animal Cremation Facility

SES Reference No. 09P231

Prepared For:

PET ANGEL WORLD MEMORIAL CENTER
6225 72ND Ave., North
Pinellas Park, Florida 33781

Prepared By:

SOUTHERN ENVIRONMENTAL
SCIENCES, INC.
1204 North Wheeler Street
Plant City, Florida 33566

REGISTRATION FORM

Pet Angel Memorial Center®

LOVE NEVER LEAVES®

June 17, 2009

Mr. Kenneth M. Roberts
Southern Environmental Sciences, Inc.
1204 North Wheeler St.
Plant City, FL. 33566

RE: Air General Permit Registration
Third Animal Crematory

Dear Kenneth,

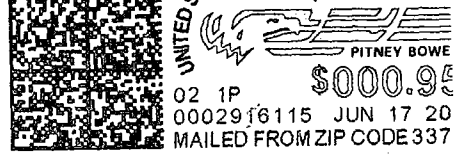
In response to the request letter dated May 20, 2009 for the registration of the third animal crematory located at 6225 72nd. Ave. N Pinellas Pak, Florida 33781 I have enclosed a check in the amount of $100.00 to cover the registration fee.

Sincerely,

Sharon Martinache

Sharon Martinache
Regional Director of Veterinary Support Services
Pet Angel World Services

Pet Angel
Memorial Center®
6225 72nd Ave. North, Pinellas Park, FL 33781
www.PetAngelMemorialCenter.com



Florida Department of Environmental Protection
Receipts
P.O. Box 3070
Tallahassee, FL. 32315-3070