

RECEIVED

DEC 28 2009

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)

0610095-001

**Registration Type**

Check one:

**INITIAL REGISTRATION** - Notification of intent to:

**XX** 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.)  
**FOREVER FAMILY PET CREMATIONS**

**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.)  
**VERO BEACH FACILITY**

**Facility Location** (Provide the physical location of the facility, not necessarily the mailing address.)  
Street Address: **1126 OLD DIXIE HIGHWAY**  
City: **VERO BEACH** County: **INDIAN RIVER** Zip Code: **32960 - 4369**

**Facility Start-Up Date** (Estimated start-up date of proposed new facility.) (N/A for existing facilities)  
**3/15/2010**

**Owner/Authorized Representative**

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

Print Name and Title: **TIM MYERS, OWNER**

Owner/Authorized Representative Mailing Address

Organization/Firm: **FOREVER FAMILY PET CREMATIONS**

Street Address: **3280 BRITTIN PLACE**

City: **VERO BEACH**

County: **INDIAN RIVER**

Zip Code: **32960** ~~XXXX~~

Owner/Authorized Representative Telephone Numbers

Telephone: **772-473-8416**

Fax:

Cell phone (optional):

**Facility Contact (If different from Owner/Authorized Representative)**

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

Print Name and Title: **SAME AS ABOVE**

Facility Contact Mailing Address

Organization/Firm:

Street Address:

City:

County:

Zip Code:

Facility Contact Telephone Numbers

Telephone:

Fax:

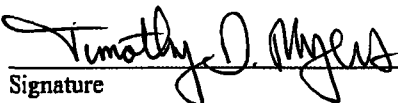
Cell phone (optional):

**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.*

  
Signature

12-18-2009  
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 new B&L Systems, Inc. Model BLP 500 animal crematory.**

**The BLP 500 incinerator is designed to burn a 500 pound batch load animal remains at the average incineration rate of 150 pounds per hour. The incinerator consists of primary and secondary (afterburner) chambers each fired exclusively on natural gas or LPG with a maximum total design heat input rate of 1.5 MMbtu/hr (0.5 MMbtu/hr, Primary chamber, 1.0 Mmbtu/hr, Secondary Chamber).**

**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.**

**CALCULATIONS FOR PRODUCTS OF COMBUSTION  
AND RESIDENCE TIME FOR  
B & L CREMATION SYSTEMS BLP500,  
LPG FIRED,  
150 LB/HR, TYPE IV WASTE, ANIMAL CREMATORY**

**A. BASIS: 1 LB WASTE**

1.  $\frac{1 \text{ lb waste} \times 1000 \text{ Btu/lb waste}}{10,000 \text{ Btu} / 15 \text{ lb air}} = 1.5 \text{ lbs air}$
2.  $\frac{1 \text{ lb waste} \times 0.10 \text{ lb combustible}}{\text{lb waste}} = 0.10 \text{ lbs of combustibles}$
3.  $\frac{1 \text{ lb waste} \times 0.85 \text{ lb H}_2\text{O} \times 1.6^{(1)}}{\text{lb waste}} = 1.36 \text{ lbs of water}$
4.  $\frac{6500 \text{ Btu aux fuel}^{(2)} \times 23.8 \text{ ft}^3 \text{ air/ft}^3 \text{ fuel}}{2550 \text{ Btu/ft}^3 \text{ fuel} \times 13.35 \text{ ft}^3 \text{ air/lb air @70°F}} = 4.54 \text{ lb of air for aux fuel}$
5.  $\frac{6500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/ft}^3 \text{ fuel}}{2550 \text{ Btu/ft}^3 \text{ fuel}} = 0.11 \text{ lb of aux. fuel}$
6. Sum = PRODUCTS OF COMBUSTION (POC)= 7.61 LBS POC PER LB OF WASTE @ 70 °F

**B. RESIDENCE TIME @ 1800 °F**

$$\frac{7.61 \text{ lb POC/lb waste} \times 56.93 \text{ ft}^3/\text{lb POC @1800 °F} \times 150 \text{ lb waste/hr}}{3600 \text{ sec/hr}}$$

$$= 18.1 \text{ ft}^3/\text{sec @1800 °F}$$

$$= 18.1 \text{ ft}^3 \text{ for 1 second residence time}$$

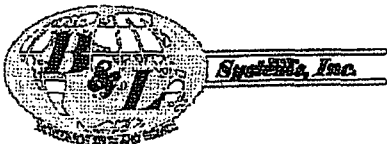
Thermocouple placement at: 20 ft<sup>3</sup>

Secondary chamber operating temperature ≥ 1600 °F

(1)

(2) Correction multiplier for dry air and water vapor  
Fuel is propane

References: Incinerator Institute of America  
North American Combustion Handbook



## **Dibble, Dickson**

---

**From:** Ken Roberts [kroberts@sesfla.com]  
**Sent:** Friday, January 08, 2010 2:52 PM  
**To:** Dibble, Dickson; Tim Myers  
**Subject:** Residence time calc's  
**Attachments:** BLP500 Residence Time.pdf

Tim & Dick:

Hopefully you will get the attachment this time

Attached is a copy of the residence time calculations that were sent to Dick Dibble at FDEP on 1/6/10.

I have just sent them again to his email address.

Ken Roberts  
Vice President  
SOUTHERN ENVIRONMENTAL  
SCIENCES, INC.  
1204 North Wheeler Street  
Plant City, Florida 3563  
813-752-5014 (office)  
813-752-2475 (fax)  
813-323-5901 (cell)

**AIR GENERAL  
PERMIT REGISTRATION  
FOREVER FAMILY PET CREMATIONS  
ANIMAL CREMATORY**

SES Reference No. 09P490

Prepared For:

**FOREVER FAMILY PET CREMATIONS  
3280 Brittin Place  
Vero Beach, Florida 32960**

Prepared By:

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

**Owner/Authorized Representative**

<u>Name and Position Title:</u> (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.) Print Name and Title: <b>TIM MYERS, OWNER</b>		
<u>Owner/Authorized Representative Mailing Address</u> Organization/Firm: <b>FOREVER FRIENDS PET CREMATIONS</b> Street Address: <b>3280 BRITTIN PLACE</b> City: <b>VERO BEACH</b> County: <b>INDIAN RIVER</b> Zip Code: <b>32960</b>		
<u>Owner/Authorized Representative Telephone Numbers</u> Telephone: <b>772-473-8416</b> Fax: Cell phone (optional):		

**Facility Contact (If different from Owner/Authorized Representative)**

<u>Name and Position Title</u> (Plant manager or person to be contacted regarding day-to-day operations at the facility.) Print Name and Title: <b>SAME AS ABOVE</b>		
<u>Facility Contact Mailing Address</u> Organization/Firm: Street Address: City: County: Zip Code:		
<u>Facility Contact Telephone Numbers</u> Telephone: Fax: Cell phone (optional):		

**Owner/Authorized Representative Statement**

<p>This statement must be signed and dated by the person named above as owner or authorized representative</p> <p><i>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></p> <p><i>I will promptly notify the Department of any changes to the information contained in this registration form.</i></p> <p>_____ Signature</p> <p>_____ Date</p>	
---	--

**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 new B&L Systems, Inc. Model BLP 500 animal crematory.**

**The BLP 500 incinerator is designed to burn a 500 pound batch load animal remains at the average incineration rate of 150 pounds per hour. The incinerator consists of primary and secondary (afterburner) chambers each fired exclusively on natural gas or LPG with a maximum total design heat input rate of 1.5 MMbtu/hr (0.5 MMbtu/hr, Primary chamber, 1.0 Mmbtu/hr, Secondary Chamber).**

**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.**



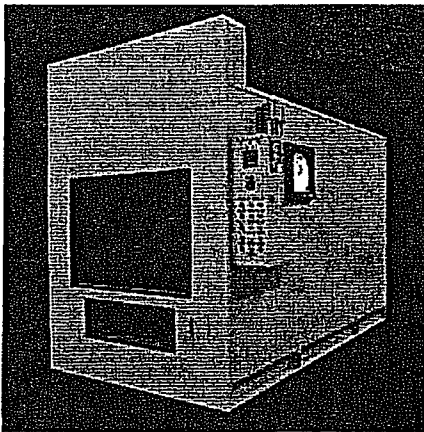


PHOTO UPDATE  
IN PROGRESS..

[Download BLP 500 Installation Manual](#)

U.S. Standard	Metric
Length: 126"	3.2m
Width: 66" (76" With Control Panel)	1.6m (1.9m With Control Panel)
Height: 96" (101" With Door Cap)	2.4m (2.5m With Door Cap)
Weight: 19,000 lbs.	8,618 Kg
Door Opening:	
Chamber Dimensions:	
Length: 77"	1.9m
Width: 40"	1.0m
Height: 32"	0.8m
Power Requirments: 220V, Single Phase, 60 Cycle, 30 AMPS & 100 Volts Single Phase 60 Cycle, 10 AMP	
Stack height: 24" O.D 20 ft minimum	0.6m O.D 6.0m minimum
Gas Pressure:	
Natural Gas 7" W.C.	Natural Gas 1.7 kPa W.C.
Propane Gas 11" W.C.	Propane 2.7 kPa W.C.
Cremation Rate: 150 lbs/hour	68 Kg/hour
Body Weight Capability: 500 lbs	226 Kg
Burner Output:	

Maximum Input Rating 1,500,000 BTU's per hour

Maximum Input Rating  
1,582,583 KJ per hour

Afterburner Maximum 1,000,000 BTU's per hour

Afterburner Maximum 1,  
055,055 KJ per hour

Modulation Minimum 100,000 BTU's per hour

Modulation Minimum  
105,505 KJ per hour

Cremation Burner 500,000 BTU's per hour

Cremation Burner 527,500  
KJ per hour

Air Requirements: Outside air inlet louvers in the room located at or below burner height, capable of passing 2,500 CFM of free air

### Features Common To The Above Unit

**FULLY AUTOMATIC CONTROL SEQUENCE.** Operation is made simple by the fully automatic control sequence. A microprocessor temperature controller, with a digital readout, ensures optimum control while providing the lowest fuel consumption. Visual verification of each stage is provided on the control panel. Operator override is achieved at a turn of a switch for semi-manual control.

**HOT HEARTH DESIGN.** First introduced by B & L, this design allows for wasted afterburning heat to be recycled through the floor, eliminating fluid problems, lowering fuel consumption and extending the hearth life.

**MULTI-CHAMBER AIR CONTROLLED DESIGN.** The entire combustion process is completed within the air controlled chambers eliminating burning in the stack, allowing for 24 hour operation and providing for greater fuel efficiency over excess air designs.

**POLLUTION MONITORING & CONTROL SYSTEM.** This system constantly monitors the stack gases to prevent visible emissions. Integrated with the automatic system, this feature enables the unit to make all necessary adjustments automatically.

**REFRACTORY LINED STACK.** A three inch insulating liner is provided as a safety feature. While gases seldom exceed 1000°F, the liner reduces heat penetration under every condition, preventing the possibility of fire. A ten year warranty is offered on the stack liner.

**LOW NOISE.** The secondary combustion blower has been manufactured and installed to allow for low noise operation.

***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 effect

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 time 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 contractor, 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" contractor 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 contractor, 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"

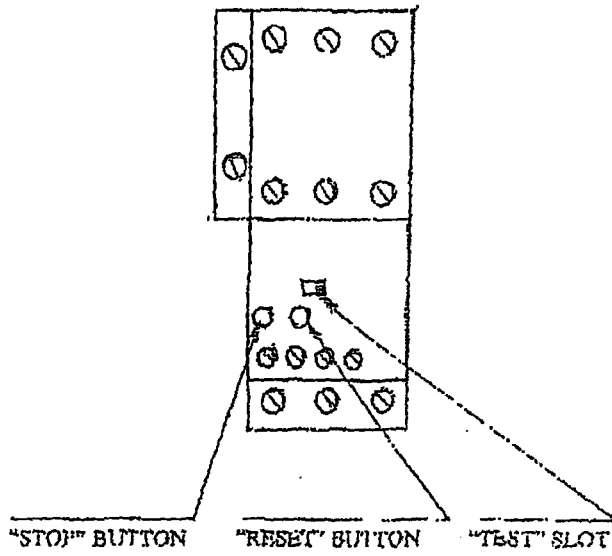
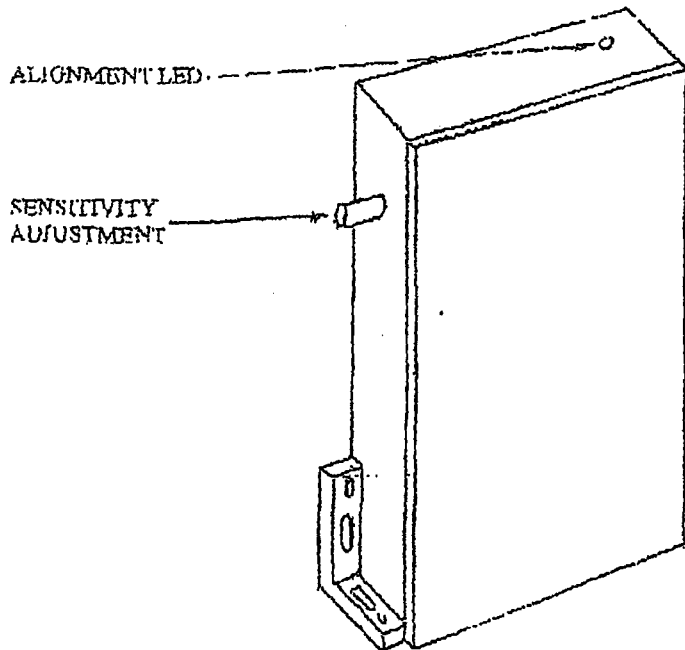
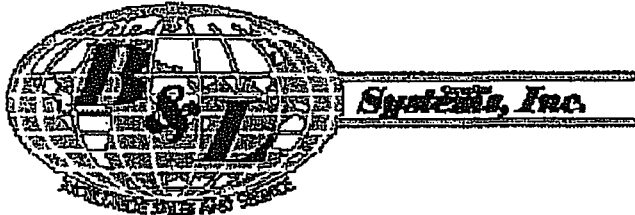


FIGURE 2, OPACITY MONITOR





7205 114<sup>TH</sup> 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<sup>3</sup> 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.

## Dibble, Dickson

---

**From:** cmyers820@aol.com  
**Sent:** Wednesday, January 06, 2010 9:03 AM  
**To:** Dibble, Dickson  
**Subject:** Fwd: General Permit Registration  
**Attachments:** General\_Permit\_Application.pdf

-----Original Message-----

From: Ken Roberts <kroberts@sesfla.com>  
To: Tim Myers <cmyers820@aol.com>  
Sent: Mon, Dec 7, 2009 3:49 pm  
Subject: General Permit Registration

## Southern Environmental Sciences, Inc.

1204 North Wheeler Street ~ Plant City, Florida 33563 ~(813) 752-5014, Fax (813) 752-2475

December 7, 2009

Tim Myers  
FOREVER FAMILY PET CREMATIONS  
3280 Brittin Place  
Vero Beach, FL 32960  
Email cmyers820@aol.com

Re: Air General Permit Registration

Dear Mr. Myers:

Attached for your review and signature is a copy of the general permit registration for your new crematory. You will need to sign and date page "8" and send it, along with a check in the amount of \$100.00, to:

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

I will send you a bound bound copy of the application that will contain your permit conditions and must be retained onsite with the crematory. Please read the permit conditions carefully. There are record keeping and documentation requirements that need to be adhered to.

The registration becomes effective 30 days after it is received in Tallahassee and is valid for five years. The only correspondence you will receive from FDEP is a letter confirming the effective date of the permit.

You must have a visible emissions evaluation performed within 30 days of starting operation of the crematory. We can perform this for you if you will let us know when you intend to start up the unit.

If you have any questions concerning the permit registration or we can be of any further assistance to you please do not hesitate to call.

Very Truly Yours,

SOUTHERN ENVIRONMENTAL  
SCIENCES, INC.

Kenneth M. Roberts, QEP  
Vice President

KMR/mr

Enclosure

Cc: Dr. Steve Looker, B & L Systems, Inc. w/ enclosure



**REGISTRATION FORM**

## **RESIDENCE TIME CALCULATIONS**

**INCINERATOR INFORMATION**

FOREVER FAMILY PET CREMATIOS  
3280 BRITTIN PL.  
VERO BEACH, FL. 32960

ORLANDO FL 328

21 DEC 00 PM 7 T



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECEIPTS  
P.O. BOX 3070  
TALLAHASSEE, FL. 32315-3070

32315+3070

