



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 17, 2007

Mr. Randy Hudgins
Kotrady, Hudgins & Croyle Funeral Home
209 South Ponce De Leon Boulevard
Saint Augustine, Florida 32084

Dear Mr. Hudgins:

This is to acknowledge that your notification of intent to use the authority of Rule 62-210.310 to operate your facility was received on November 9, 2007. We have assigned ARMS Number 1090461-001 to this facility.

As you know, pursuant to Florida Statutes section 403.814, authority to operate under general permits commences thirty days after receipt of the registration form unless you have been notified by this office that your facility has not shown entitlement to operate pursuant to the rule provisions.

For your information, authority to operate pursuant to Rule 62-210.310 expires after 5 years. Therefore, a new registration form must be received no later than 5 years after the date your notice was received as indicated above. If your general permit rule conditions require testing, such testing must be completed within the time frame specified in the rule.

If you have any additional questions, please contact Dickson Dibble at 850/921-9586.

Sincerely,

SFV Sandra F. Veazey, Chief
Bureau of Air Monitoring
and Mobile Sources

SFV/pg

cc: Mr. Rick Banks, Northeast District

**HUMAN CREMATORY
AIR GENERAL PERMIT REGISTRATION FORM**

Part II. Notification to Permitting Office

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

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050(4)(o), F.A.C. (\$100 as of the effective date of this form)

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.) *Kotrady-Hudgins Funeral Services LLC, dba*
 KOTRADY, HUDGINS & CROYLE FUNERAL HOME

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.)

ST. JOHNS FAMILY FUNERAL HOME AND CREMATORY

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

Street Address: 385 SR 207

City: ST. AUGUSTINE

County: ST. JOHNS

Zip Code: 32084

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

1/15/2008

1090461-001

RECEIVED
 NOV 14 2007
 Bureau of Air, Mobile Sources
 & Mobile Sources

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: RANDY HUDGINS, OWNER

Owner/Authorized Representative Mailing Address

Organization/Firm: KOTRADY, HUDGINS & CROYLE FUNERAL HOME

Street Address: 209 S PONCE DE LEON BLVD.

City: ST. AUGUSTINE

County: ST. JOHNS

Zip Code: 32084

Owner/Authorized Representative Telephone Numbers

Telephone: 904-824-1625

Fax: 904-824-8906

Cell phone (optional): 904.669.5463

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:

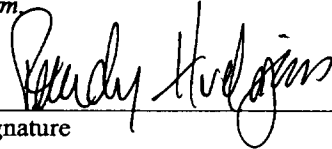
Cell phone (optional):

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

11/7/07
Date

Design Calculations

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

- Manufacturer's design calculations attached.
 Registration is not for proposed new human crematory unit(s).

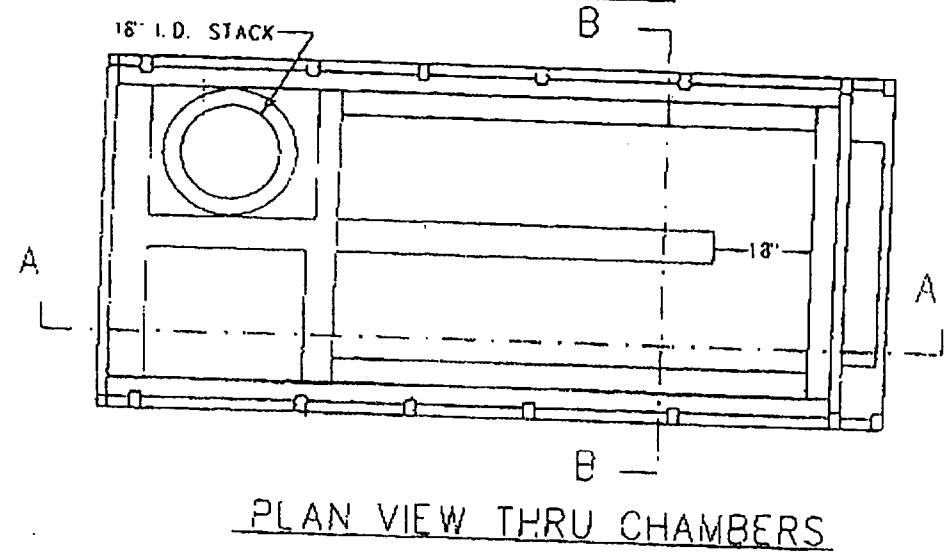
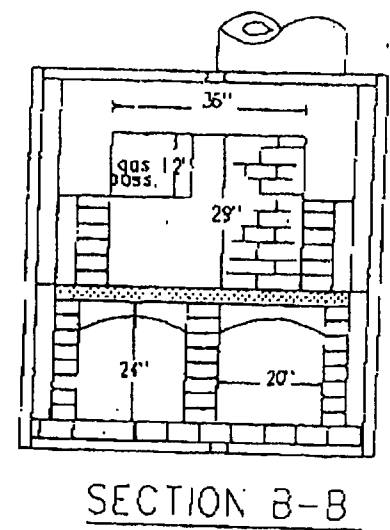
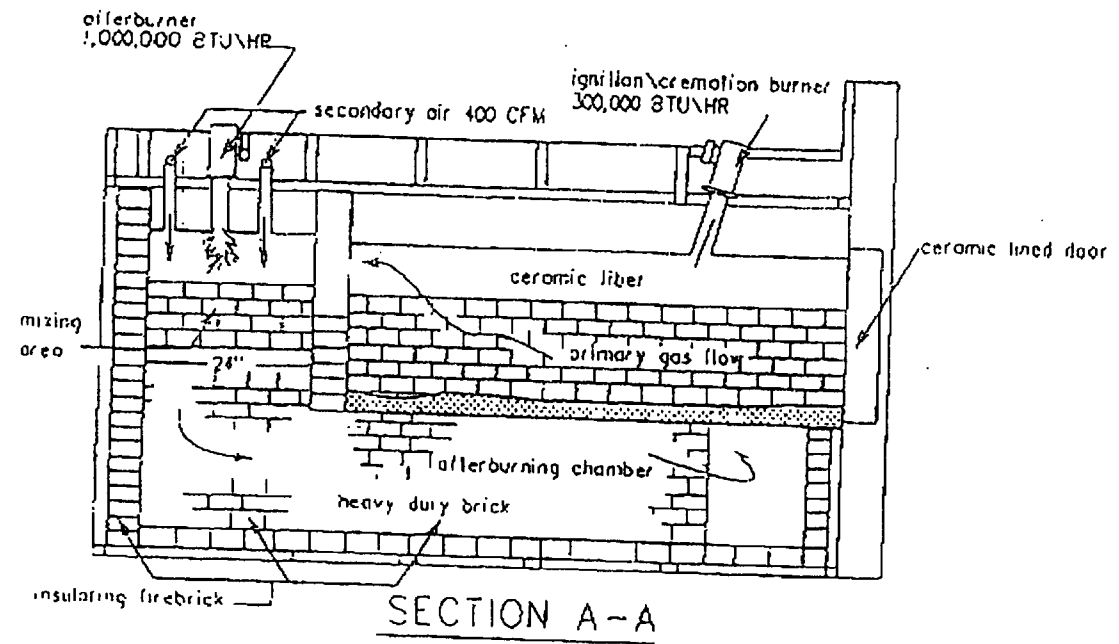
Description of Facility

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 notification is for a proposed new B&L Cremations Systems, Inc. N20 Series, 150 lb/hr human crematory incinerator. The new crematory is designed to burn human remains at the average incineration rate of 150 pounds per hour. The incinerator consists of primary and secondary (afterburner) chambers, each fired on natural gas 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, which will maintain a minimum secondary chamber combustion zone temperature of 1600°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°F, and is equipped with a continuous temperature monitor and recorder.

Manufacturer's information, including diagrams, opacity monitor information and residence time calculations are attached.



ALL COMPONENTS U.L. AND/OR A.G.A. APPROVED
C.S.A. - C.G.A.

N20 CREMATOR



Systems, Inc.

7205 - 114th Avenue North • Largo, Florida 34773
1-800-622-5411 • 727-541-4666 • facsimile 777-547-4669
e-mail: blcremsys@aol.com • www.blcremationsystems.com

VISIBLE OPACITY MONITOR (VOM-1)



APPLICATION: monitoring control used on retorts to warn operators and shut down processes based on opacity.

IMPROVED RUGGED DESIGN

EASY TO INSTALL AND SUPPORT

UNAFFECTED BY AMBIENT LIGHT

EXTERNAL ADJUSTMENT

SPANS UP TO 6 FEET

VISIBLE LED LIGHT SOURCE

World's Largest Independent Cremation Equipment Manufacturer

B&L CREMATION SYSTEMS, INC.

GENERAL PURPOSE OPACITY MONITOR

SPECIFICATIONS

LIGHT SOURCE: Pulsed visible LED

SPECTRAL RESPONSE: Between 400nm and 500nm

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 (NEW)

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 dept. 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' step ladder

Step 1: Open the electrical cabinet located on your retort. Inside, locate the "C1 BLOWER" contactor. 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: Using a pen, push the test slot to the left until only black is visible. This will disable the main blower, allowing you to adjust the opacity monitor, and hear the internal relay click

Step 3: 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 of a 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 holding 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 blank, counterclockwise and clockwise are reversed. Counterclockwise will be clockwise and clockwise will be counterclockwise.

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

OPACITY MONITOR ADJUSTMENT PROCEDURE

FIGURE 1 "CI BLOWER"

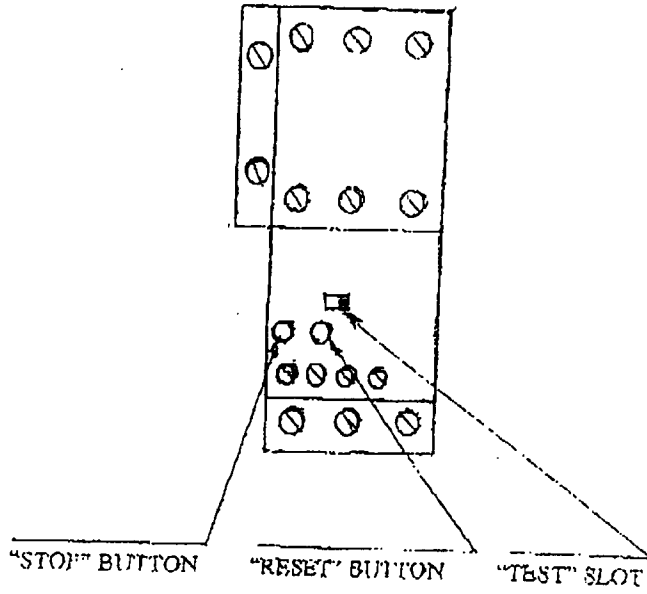
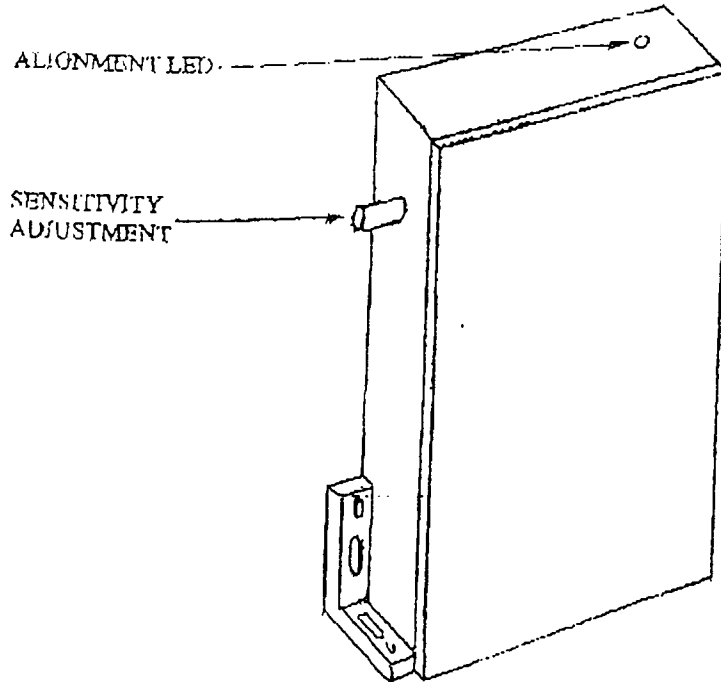


FIGURE 2, OPACITY MONITOR



CALCULATIONS FOR PRODUCTS OF COMBUSTION
AND RESIDENCE TIME FOR 150 LB/hr
TYPE IV WASTE. B&L N-20 SERIES CREMATORY

PROPANE

A. BASIS: 1 LB WASTE

1. $1 \text{ lb waste} \times \frac{1000 \text{ Btu/lb waste}}{10,000 \text{ Btu}} \times 1.5 \text{ lbs air}$ = 1.5 lbs air
2. $\frac{1 \text{ lb waste} \times 0.10 \text{ lb combustible}}{1 \text{ lb waste}}$ = 0.10 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 lbs of water
4. $\frac{6,500 \text{ Btu aux fuel}^{**} \times 23.8 \text{ cu ft air/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel} \times 13.35 \text{ cu ft air/lb air @ 70f}}$ = 4.64 lbs of air for aux fuel
5. $\frac{6,500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel}}$ = 0.11 lb of aux fuel
6. Sum = PRODUCTS OF COMBUSTION (POC) = 7.71 lbs POC per lb waste @ 70f

B. RESIDENCE TIME @ 1600 F

1. $\frac{7.71 \text{ lbs POC/lbs waste} \times 51.89 \text{ cu ft / lb POC @ 1600f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$
= 16.67 cu ft / sec @ 1600 f = 17.00 cu ft for 1 second residence time

RESIDENCE TIME @ 1800 F

2. $\frac{7.71 \text{ lbs POC/lbs waste} \times 56.93 \text{ cu ft / lb POC @ 1800f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$
= 18.1 cu ft / sec @ 1800 f = 19.00 cu ft for 1 second residence time

* Correction multiplier for dry air and water vapor

** Fuel is propane

Referances: Incinerator institute of America.
North American Combustion Handbook
Eclipse Combustion Engineering guide

C. THERMOCOUPLE PLACEMENT.

Secondary chamber operating temperature at > or = to 1600f - 17.00 cu ft from flame tip.
1800f - 19.00 cu ft from flame tip.



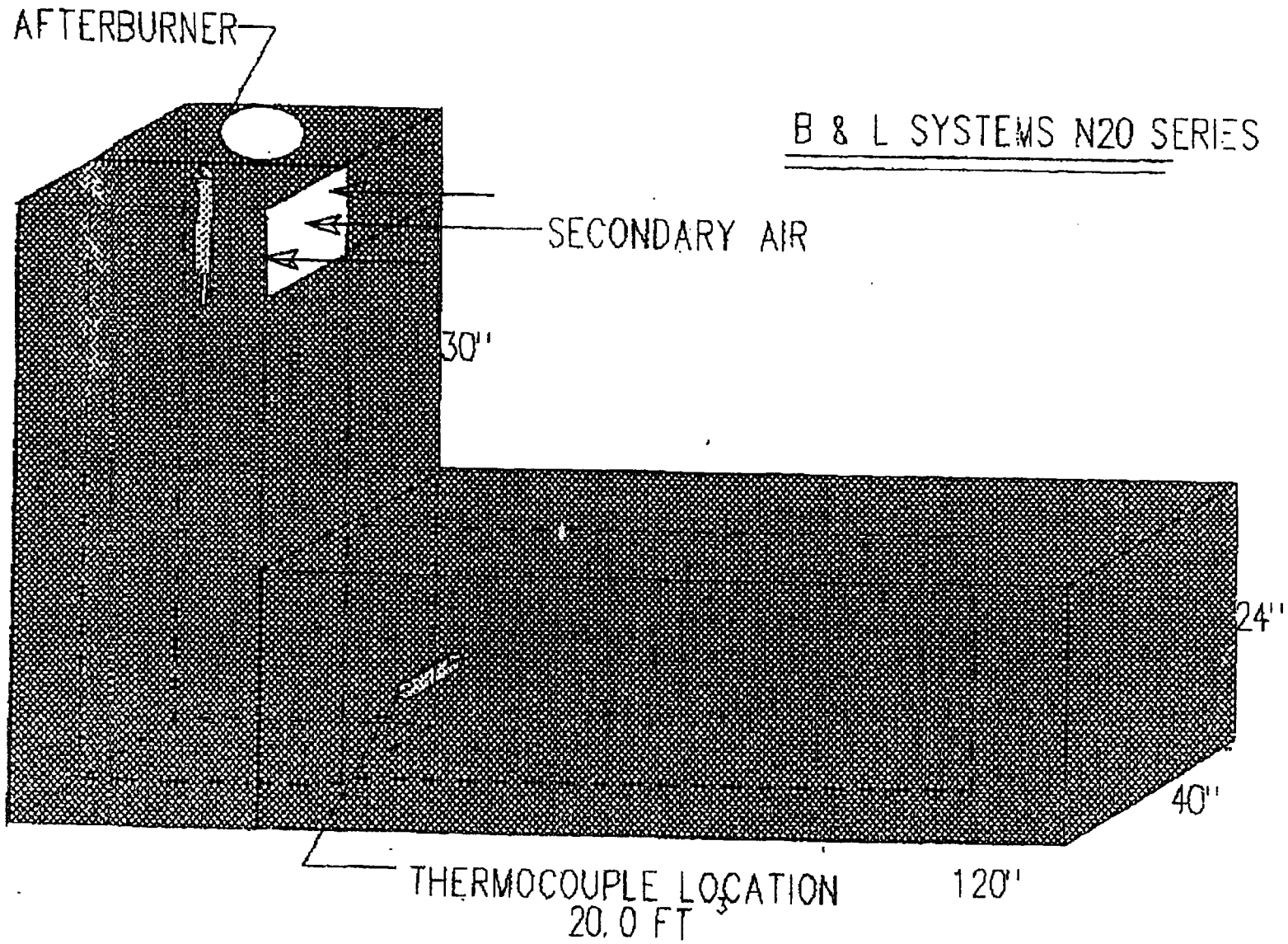
Cremation
Systems, Inc.

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 19³ ft. down stream of the flame tip to measure temperature, the signal is sent to the *main control panel* where it is received by a FUJI PYZ series temperature controller with digital readout and a DR4200 *temperature recorder*. The FUJI PYZ series temperature controller controls the temperature via a *motorized butterfly valve* located on the *afterburner inlet gas assembly*. Gas demand is controlled by temperature to maintain a steady temperature. The *ignition/cremation burner* is interlocked to the *afterburning temperature* by the FUJI PYZ series temperature controller set point. Combustion cannot start until *temperature set point* is reached. Alarm contacts in the FUJI PYZ series 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 out put 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 omissions 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 operation.

B & L SYSTEMS N20 SERIES



SHADED AREA REPRESENTS AFTERBURNER CHAMBER VOLUME OF
 $83.00 \text{ FT}^3 @ 1800^\circ\text{F}$

**Florida Department of Environmental Protection
Cash Receiving Application (CRA)
Cashlisting by Deposit #: 281274 thru 281274
Printed: 11/9/2007 4:24:13 PM - Page 5**

Cashlisting: **65053** Cashlist Area: **3755** Description: **DIV OF AIR RESOURCES MGMT.**
 Deposit No: **281274** Date Deposited: **11/09/2007** Contact: **PATTY ADAMS**

Object	Transmittal	Dep DDN	Receipt Number	Pre-Numbered Receipt	Name	Check Number	Payment Amount	Reference Account	Payment Number	Remittance Number	Fund	
002272	45587	477945	605773		KOTRADY HUDGINS CROYLE FUNERAL	180	\$100.00	11/16/2007	847187	754446	PFTF	
Object Code 002272 Subtotal:							\$100.00					
002278	45587	477949	605777		LANG ENVIRONMENTAL INC	032247	\$100.00	46077	847190	754450	APCTF	
	45587	477950	605778		HARMAC, INC	22829	\$200.00	45928	847191	754451	APCTF	
	45587	477950	605778		HARMAC, INC	22829	\$100.00	45959	847192	754451	APCTF	
Object Code 002278 Subtotal:							\$400.00					
Cashlisting 65053 Total:							\$500.00					

KOTRADY-HUDGINS-CROYLE
FUNERAL HOME
209 S. PONCE DE LEON BLVD.
SAINT AUGUSTINE, FLORIDA 32084
904-824-1625

SAINT AUGUSTINE, FLORIDA
NOV 07 07
MAILED FROM ZIP CODE 32084

NOV 7 2007

NOV 7 07

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