

RECEIVED

OCT 13 2011

DIVISION OF AIR RESOURCE MANAGEMENT

ANIMAL CREMATORIES AIR GENERAL PERMIT EXAMPLE REGISTRATION WORKSHEET

Facility Identification Number - If known (seven digit number)

New Proposed Facility 0090232-001

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
Operate an existing permitted facility not currently using an air general permit...
Operates an existing facility not currently permitted or using 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.
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 Applicable

All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s):

N/A

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.) Glen C Wamble, Owner Floriday Pet Cremation, Inc.

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a complete registration must be submitted for each.)

N/A

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

Street Address: 692 Atlantis Rd. City: Melbourne, FL County: Brevard Zip Code: 32904-2340

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

November 31, 2011 (by or before)

Facility Contact

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

Print Name and Title: Glen C. Womble, Owner/President

Facility Contact Telephone Numbers

Telephone: (321) 242-8415

Fax: _____

Cell phone: (321) 288-5605

E-mail: gwomble@cfl.rr.com

Facility Contact Mailing Address

Organization/Firm: Floriday Pet Cremation

Mailing Address: 692 Atlantis Rd.,

City: Melbourne, FL

County: Brevard

Zip Code: 32904-2340

Other Contact/Representative (to serve as additional Department contact)

Name and Position Title

Print Name and Title: Kathleen B. Womble, Vice President

Other Contact/Representative Telephone Numbers

Telephone: (321) 242-8415

Fax: (321) 242-8415

Cell phone: (321) 288-8179

E-mail: gwomble@cfl.rr.com

Other Contact/Representative Mailing Address

Organization/Firm: _____

Mailing Address: _____

City: _____

County: _____

Zip Code: _____

* SEE ATTACHED FAX 11/02/11
 PAGE 4, FOR RATED
 CAPACITY CORRECTION.

Emission Unit Details

MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	RATED CAPACITY**
B&L	N20 AA	63641902	600 lbs.

** Note: Any animal crematory unit at the facility shall not exceed a design capacity of 500 lbs/hour.

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.

- Design calculations attached. *new animal crematory*
- Registration is not for proposed new animal crematory unit(s).

Helpful Definitions

"Animal Crematory" - Any combustion apparatus used solely for the cremation of animal remains.

"Biomedical Waste" - Any solid or liquid waste which may present a threat of infection to humans, including nonliquid-tissue, body parts, blood, blood products, and body fluids from humans and other primates; laboratory and veterinary wastes which contain human disease-causing agents; and discarded sharps. The following are also included:

1. Used absorbent materials saturated with blood, blood products, body fluids, or excretions or secretions contaminated with visible blood; and absorbent materials saturated with blood or blood products that have dried.
2. Non-absorbent, disposable devices that have been contaminated with blood, body fluids, or secretions or excretions visibly contaminated with blood, but have not been treated by a method listed in Section 381.0098, F.S., or a method approved pursuant to Rule 64E-16, F.A.C.

"Department" or "DEP" - The State of Florida Department of Environmental Protection.

"Emissions Unit" - Any part or activity of a facility that emits or has the potential to emit any air pollutant.

"Facility" - All of the emissions units which are located on one or more contiguous or adjacent properties, and which are under the control of the same person (or persons under common control).

"Owner" or "Operator" - Any person or entity who or which owns, leases, operates, controls or supervises an emissions unit or facility.

(*) - Above unit has been purchased from Atlas Crematory
 2111 South Hwy US #1, Rockledge, FL 32955.

- This unit will be moved to new location of:
 692 Atlantic Rd., Melbourne, FL 32904 and
 used as a pet crematorium (Friday Pet Cremation, Inc.)

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

PROPANE

*INCORRECT FOR
THIS UNIT - SEE
ATTACHED E-MAIL
NG DESIGN
CALCS,*

A. BASIS: 1 LB WASTE

1. $\frac{1 \text{ lb waste} \times 1000 \text{ Btu/lb waste} \times 15 \text{ lbs air}}{10,000 \text{ Btu}} = 1.5 \text{ lbs air}$
2. $\frac{1 \text{ lb waste} \times 0.10 \text{ lb combustible}}{1 \text{ lb waste}} = 0.10 \text{ lbs of combustibles}$
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. $\frac{6,500 \text{ Btu aux fuel}^{**} \times 23.8 \text{ cu ft air/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel} \times 13.35 \text{ cu ft air/lb air @ 70f}} = 4.64 \text{ lbs of air for aux fuel}$
5. $\frac{6,500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/cu ft fuel}}{2,500 \text{ Btu/cu ft fuel}} = 0.11 \text{ lb of aux fuel}$
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.

*ADDENDUM TO #0090232-001

ATTACHMENT DESIGN CALCULATIONS,

Dibble, Dickson

NATURAL GAS

From: Glen Womble [gwomble@cfl.rr.com]
Sent: Tuesday, October 18, 2011 6:21 PM
To: Dibble, Dickson
Subject: Calculations
Attachments: 20111018115350840.pdf

Mr. Dibble, please find attached the design calculations for the retort (N20AA) that I am applying for a general air permit. This calculation has "Natural Gas" at the top which is what I will be using. This is for Floriday Pet Cremation to be located at 692 Atlantis Rd., Melbourne, FL 32904.

Thanks, and let me know if you need anything else.

Glen Womble

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

NATURAL GAS

A. BASIS: 1 LB WASTE

1. $\frac{1 \text{ lb waste} \times 1000 \text{ Btu/lb waste} \times 15 \text{ lbs air}}{10,000 \text{ Btu}} = 1.5 \text{ lbs air}$
2. $\frac{1 \text{ lb waste} \times 0.10 \text{ lb combustible}}{1 \text{ lb waste}} = 0.10 \text{ lbs of combustibles}$
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. $\frac{6,500 \text{ Btu aux fuel}^{**} \times 10.0 \text{ cu ft air/cu ft fuel}}{1,050 \text{ Btu/cu ft fuel} \times 13.35 \text{ cu ft air/lb air @ 70f}} = 4.64 \text{ lbs of air for aux fuel}$
5. $\frac{6,500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/cu ft fuel}}{1,050 \text{ Btu/cu ft fuel}} = 0.27 \text{ lb of aux fuel}$
6. Sum = PRODUCTS OF COMBUSTION (POC) = 7.86 lbs POC per lb waste @ 70f

B. RESIDENCE TIME @ 1600 F

1. $\frac{7.86 \text{ lbs POC/lbs waste} \times 51.89 \text{ cu ft / lb POC @ 1600f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$
 $= 16.99 \text{ cu ft / sec @ 1600 f} = 17.00 \text{ cu ft for 1 second residence time}$

RESIDENCE TIME @ 1800 F

2. $\frac{7.86 \text{ lbs POC/lbs waste} \times 56.93 \text{ cu ft / lb POC @ 1800f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$
 $= 18.64 \text{ cu ft / sec @ 1800f} = 19.00 \text{ cu ft for 1 second residence time}$

* Correction multiplier for dry air and water vapor

** Fuel is natural gas

References: 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.

*** ADDENDUM TO #0090232-001
PAGE 4, EMISSION UNIT DETAILS, RATED CAPACITY**

**ANIMAL CREMATORIES
AIR GENERAL PERMIT EXAMPLE REGISTRATION WORKSHEET**

D.

Facility Identification Number - If known (seven digit number)

_____ *New Proposed Facility*

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
- Operate an existing permitted 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). 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. (See "Surrender of Existing Air Operation Permit(s)" below.)
- Operates an existing facility not currently permitted or using 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.
- Any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

**ANIMAL CREMATORIES
AIR GENERAL PERMIT EXAMPLE REGISTRATION WORKSHEET**

Facility Identification Number - If known (seven digit number)

_____ *New Proposed Facility*

Registration Type

Check one:

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- Operates an existing facility not currently permitted or using an air general permit.

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_____ *N/A*

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.) *Glen C. Womble, Owner*
Floriday Pet Cremation, Inc.

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a complete registration must be submitted for each.)

_____ *N/A*

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

Street Address: *692 Atlantis Rd.*
City: *Melbourne, FL* County: *Brevard* Zip Code: *32904*

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

_____ *November 31, 2011 (by or before)*

Facility Contact

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)
 Print Name and Title: Glen C. Womble, Owner/President

Facility Contact Telephone Numbers
 Telephone: (321) 242-8415 Fax: _____
 Cell phone: (321) 288-5605
 E-mail: gwomble@cfl.rr.com

Facility Contact Mailing Address
 Organization/Firm: Floriday Pet Cremation
 Mailing Address: 692 Atlantis Rd,
 City: McLaurine, FL County: Brevard Zip Code: 32904

Other Contact/Representative (to serve as additional Department contact)

Name and Position Title
 Print Name and Title: Kathleen B. Womble, Vice President

Other Contact/Representative Telephone Numbers
 Telephone: (321) 242-8415 Fax: (321) 242-8415
 Cell phone: (321) 288-8179
 E-mail: gwomble@cfl.rr.com

Other Contact/Representative Mailing Address
 Organization/Firm: _____
 Mailing Address: _____
 City: _____ County: _____ Zip Code: _____

Emission Unit Details

MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	RATED CAPACITY**
* BFL	N20 AA	63641902	150 lbs/hr

** Note: Any animal crematory unit at the facility shall not exceed a design capacity of 500 lbs/hour.

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.

- Design calculations attached. *new animal crematory*
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(*) - Above unit has been purchased from Atlas Crematory
2111 South Hwy US #1, Rockledge, FL 32955.

- This unit will be moved to new location of:
692 Atlantic Rd., Melbourne, FL 32904 and
used as a pet crematorium (Friday Pet Cremation, Inc.)

Animal Crematories

Example Registration Worksheet

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

NATURAL GAS

A. BASIS: 1 LB WASTE

- | | |
|--|-----------------------------------|
| 1. $\frac{1 \text{ lb waste} \times 1000 \text{ Btu/lb waste} \times 15 \text{ lbs air}}{10,000 \text{ Btu}}$ | = 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 |
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| 4. $\frac{6,500 \text{ Btu aux fuel}^{**} \times 10.0 \text{ cu ft air/cu ft fuel}}{1,050 \text{ Btu/cu ft fuel} \times 13.35 \text{ cu ft air/lb air @ 70f}}$ | = 4.64 lbs of air for aux fuel |
| 5. $\frac{6,500 \text{ Btu aux fuel} \times 0.044 \text{ lb fuel/cu ft fuel}}{1,050 \text{ Btu/cu ft fuel}}$ | = 0.27 lb of aux fuel |
| 6. Sum = PRODUCTS OF COMBUSTION (POC) | = 7.86 lbs POC per lb waste @ 70f |

B. RESIDENCE TIME @ 1600 F

1. $\frac{7.86 \text{ lbs POC/lbs waste} \times 51.89 \text{ cu ft / lb POC @ 1600f} \times 150 \text{ lbs waste / hr}}{3600 \text{ sec/hr}}$
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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.

PENDING

Dibble, Dickson

From: Dibble, Dickson
Sent: Friday, October 21, 2011 5:34 PM
To: 'gwomble@cfl.rr.com'
Cc: Arif, Syed
Subject: FW: Calculations
Attachments: 20111018115350840.pdf

Dear Mr. Womble,

I am in need of clarification of some conflicting information as contained on your registration for the proposed Animal Crematory to be located in Melbourne.

- 1) Under Emission Unit Details on page four (4) of the registration, you have indicated that the **RATED CAPACITY** of the crematory is **600 lbs**. Is 600 lbs the "burn rate"? If so, it should be indicated as **600 lbs/hr** rather than just 600 lbs. "Burn rate" is usually expressed in lbs/hr. The footnote just below the Emission Unit Details on Page 4 states: **"**Note: Any animal crematory unit at the facility shall not exceed a design capacity of 500 lbs/hr."**
- 2) If your burn rate is in fact 600 lbs/hr then you would be exceeding the design capacity threshold of 500 lbs/hr and your facility would not meet the requirements as set forth in the rules for the Animal Crematory Air General Permit Registration.
- 3) If your "burn rate" is the 150 lbs/hr as indicated on the retort design calculations then we have no problem other than correcting the 600 lb figure that you have entered as the design capacity on Page 4.

Please send, via e-mail, the corrected page 4 accordingly indicating the correct design capacity (expressed in lbs/hr).

If you have any questions, comments or concerns, please e-mail or call.

Thank you and have a great weekend!

Sincerely yours,

Dickson E. Dibble

Dickson E. Dibble, ES III
Air General Permit Program
FDEP Division of Air Resource Management
Office of Permitting & Compliance
Minerals & Metals Section
Tel. (850) 717-9071
FAX (850) 717-9001
GIC - #59571
Dickson.Dibble@dep.state.fl.us

Please note: Florida has a very broad public records law. Most written communications to or from state officials regarding state business are public records available to the public and media upon request. Your e-mail communications may therefore be subject to public disclosure

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

From: Glen Womble [<mailto:gwomble@cfl.rr.com>]

Sent: Tuesday, October 18, 2011 6:21 PM

To: Dibble, Dickson

Subject: Calculations

Mr. Dibble, please find attached the design calculations for the retort (N20AA) that I am applying for a general air permit. This calculation has "Natural Gas" at the top which is what I will be using. This is for Floriday Pet Cremation to be located at 692 Atlantis Rd., Melbourne, FL 32904.

Thanks, and let me know if you need anything else.

Glen Womble

