



# 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

January 9, 2008

Mr. Ray Sagasser  
Department of Public Safety  
Animal Care & Control Division  
7100 Belvedere Road  
West Palm Beach, Florida 33411

Dear Mr. Sagasser:

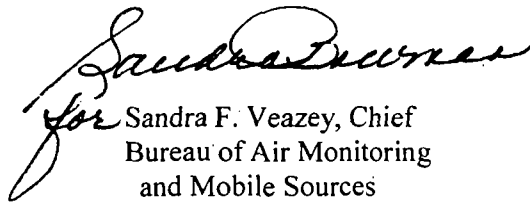
This is to acknowledge that your notification of intent to use the authority of Rule 62-210.310 to operate your facility was received on December 7, 2007. We have assigned ARMS # 0990300-004 to this facility.

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,

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

SFV/pg

cc: Mr. Lee Hoefert, Southeast District

F&A RECEIPT 07 DEC 2007

RECEIVED  
DEC 06 2007  
Bureau of Air Management  
& 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)

# 0990300-004

**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.)

Palm Beach County

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.)

Belvedere Animal Care & Control Facility

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

Street Address: 7100 Belvedere Rd.

City: West Palm Beach

County: Palm Beach

Zip Code: 33411

Facility Start-Up Date (Estimated start-up date of proposed new facility.) (N/A for existing facilities)  
January 2008

1998300

**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: Mr. John Chesher, Director, CID

Owner/Authorized Representative Mailing Address

Organization/Firm: Palm Beach County, CID

Street Address: 2633 Vista Parkway Boulevard

City: West Palm Beach

County: Palm Beach

Zip Code: 33411

Owner/Authorized Representative Telephone Numbers

Telephone: (561) 233-0266

Fax: (561) 233-0270

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: Ray Sagasser - Building Maintenance Coordinator

Facility Contact Mailing Address

Organization/Firm: Department of Public Safety

Animal Care & Control Division

Street Address: 7100 Belvedere Rd.

City: West Palm Beach

County: Palm Beach

Zip Code: 33411

Facility Contact Telephone Numbers

Telephone: (561) 233 1224

Fax:

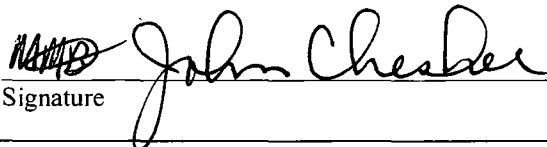
Cell phone (optional):

**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

11/13/07  
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.

- 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.

#### BELVEDERE ANIMAL CONTROL CARE & CONTROL INCINERATOR & KENNEL REPLACEMENT PROJECT

The current Animal Control Facility makes provisions for animal euthanasia and crematory procedures. Due to the increase in animal recovery and abandon pet population on Palm Beach County, the number of animals euthanized each day has increased substantially. In order to support the increase and demand for this process, a newer, more efficient incinerator will be installed. This new incinerator and loading hopper will be installed in a new enclosure, located on the east side of the existing Animal Control Facility.

#### Project Scope:

Palm Beach County Animal Control will upgrade the existing facility located at 7100 Belvedere Road, Palm Beach County Florida. These facility upgrades include the replacement of the existing (interior) incinerator equipment. A new incinerator will be installed (outside) to support the current needs of this facility.

The new incinerator enclosure and the incinerator equipment shall be installed and made fully operational, prior to the removal of the existing incinerator equipment.

The renovation work on the interior areas defined as New Work Area 187, New Kennel 196 and Existing AE Room 189 may commence after the completion of the incinerator enclosure and the installation of the new incinerator equipment. These general parameters shall be followed:

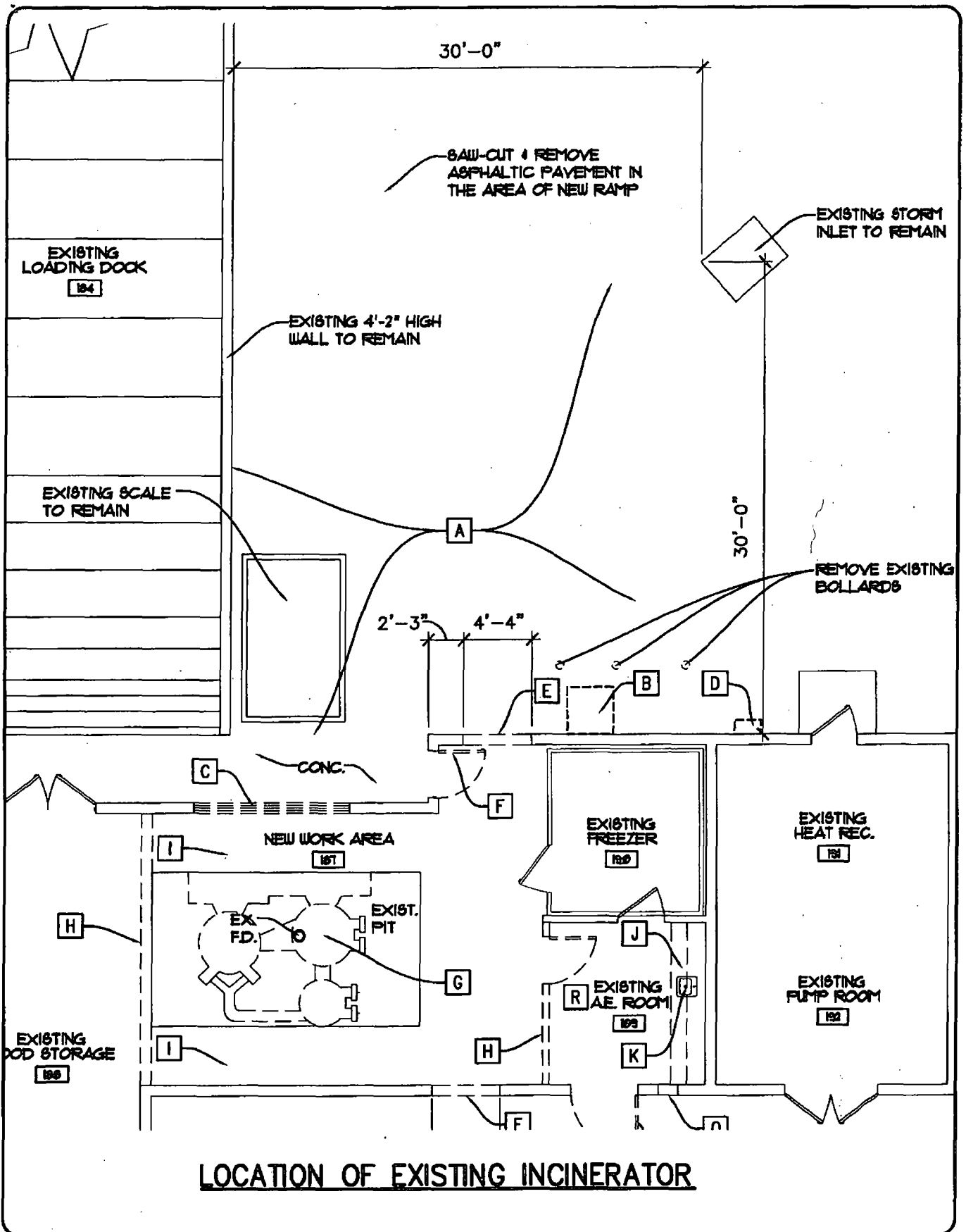
- o The existing incinerator shall be removed in its entirety
- o Infill the existing depressed slab area.
- o Complete balance of new work defined in these documents

The new incinerator shall be as specified in the attached literature and located as shown on the partial floor included herein.

**CB2400 Mass Balance and Retention Time Calc**

Heat and Mass Balance		Basis one Hour		Waste Type and Description - Generalities				
Enter the following:		This Run	0-Trash	1-Rubbish	3-Garbage	4-Animal	MSW	
Percent Carbon Combustion		95	95	95	95	95	95	
Feed Compos. %	Carbon	7	47	33	12	7	25	
	Hydrogen	2	6	5	3	2	4	
	Oxygen	6	30	26	10	6	20	
	Water	82	10	25	70	82	30	
	Chlorine	0	2	1	0.4	0	1	
	Sulfur	0.1	0.1	0.1	0.1	0.1	0.1	
	Nitrogen	0.4	0.2	0.2	0.2	0.4	0.5	
	Ash	2.5	4.70	9.70	4.30	2.5	19.4	
Stated HHV of waste feed, Btu/lb		1000	8500	6500	2500	1000	5000	
Calculated LHV by Dulong's eq, Btu/lb		630	7147	4909	1644	630	3679	
<b>&amp; subtracting heat to vaporize water</b>								
	Density of Waste, lb/cu ft	55	10	10	35	55	25	
	Heat value of waste, Btu/cu ft	1000						
				Paper, cardboard, wood-10%plastics	paper, rags, cartons floor sweepings	Food wastes, paper resta/hotels/dubs	All animal & human tissue; labs; hosp.	Municipal Waste
<-Typical Ranges->								
	Percent carbon combustion	95		95-98%				
	Percent Excess Air	250		40-150% Excess Air (=140-250% total air) for solid waste				
	Percent of Total Air	350						
	Feed rate Lbs per hour	600						
	Target Comb gas temp, deg F	1800		1700-2200				
	Target stack gas temp, deg F	450		300-600				
	True heat loss, %	3		← Losses (2-6%) due to rad/ cond/conv. Does not reflect HHV-LHV differences or delta H H2O vapz				
	O2 Req. for stoich cd	5.22 lbmol/hr						
	Dry air req	716 lb/hr						
		CO2	HCl	SO2	H2O			
	Moles from combustion	3.33	0.00	0.02	6.00			
	Moles from evap				27.33			
	Actual O2 in inlet air	lbmol/hr	18.27		Humidity Input			
	Water vapor in Air	0.008 lbs water/ lbs dry air			0.32 lbmol/hr			
	Tot. dry air, lbmol/hr	86.98			6 lb/hr			
	lb/hr	2509						
		CO2	HCl	SO2	N2	O2	H2O	
	Total moles before aux fuel	3.33	0.00	0.02	68.76	13.05	33.65	
	Total flue gas, wet	118.81 lbmol/hr			3096 lb/hr			
	Total flue gas, dry	85.16 lbmol/hr			2490 lb/hr			
	Mole Weight, wet/dry	26.06	29.25					
	Temperature with no heat added, deg F		446					
	Heat needed BTUs/Hour		1.29E+06					
<b>If heat needed is positive, then add methane fuel:</b>								
Heat balance calculations, based on LHVs and net available heat for methane								
	T (w/o) fuel	446 deg F						
	Ht need	1291546 Btu/hr						
	NAH	190975 Btu/lbmol	Net Avail heat of methane at T= target temp					
	Fuel need	6.76 lbmol/hr						
	Mol O2	14.20 lbmol/hr	(includes 10% excess air at burner)					





dwn: RJP  
 app: ADB  
 scale: 1/8" = 1'-0"  
 from sheet: A-1.1

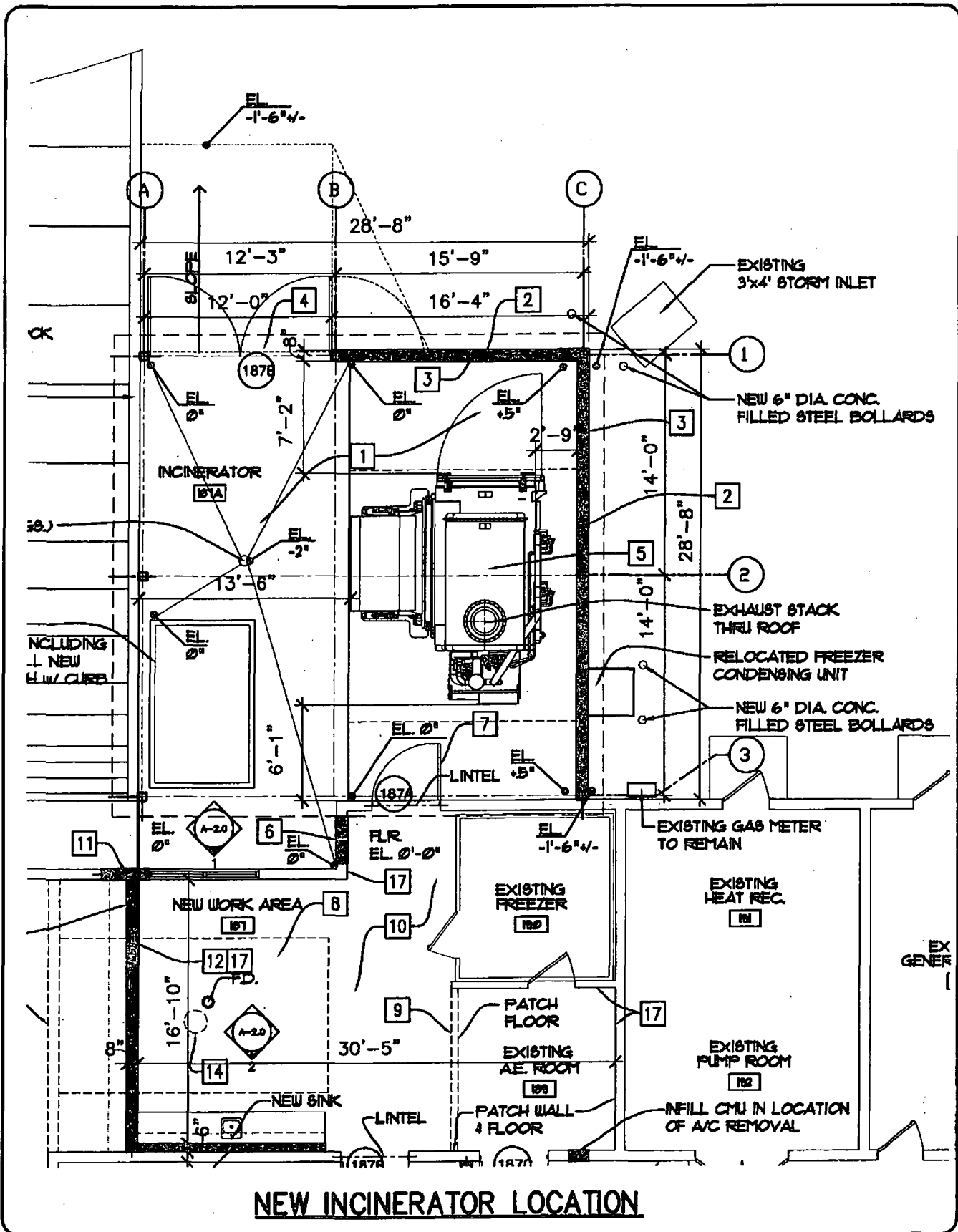
**BELVEDERE ANIMAL  
 CARE & CONTROL  
 INCINERATOR & KENNEL  
 REPLACEMENT**



**HANSON**  
 Hanson Professional Services Inc.  
 1601 belvedere road, suite 303 south, west palm beach, fl 33406 (561) 471-9370

Date: 10/31/07  
 1  
 Proj. no.: 07F602B





**NEW INCINERATOR LOCATION**

dwn: RJP  
 app: ADB  
 scale: 1/8" = 1'-0"  
 from sheet: A-1.3

**BELVEDERE ANIMAL  
 CARE & CONTROL  
 INCINERATOR & KENNEL  
 REPLACEMENT**

**HANSON**  
 Hanson Professional Services Inc.  
 1601 belvedere road, suite 303 south, west palm beach, fl 33406 (561) 471-9370

date: 10/31/07  
 2  
 proj. no.: 07F8208

Re-sent, prior address was incorrect 12/5/07, overnight



RECEIVED  
DEC 06 2007  
OUR OFFICE IS AT THE UNIVERSITY OF FLORIDA  
& MOBILE SOFTWARE

**LETTER OF TRANSMITTAL**

TO: 850-921-9551  
**Division of Air Resources Management**  
2633 Blair Stone Rd. MS-5500  
Tallahassee, FL 32399-2400  
101 Magnolia Plaza  
Suite 9  
Tallahassee, FL 32301

DATE: <sup>12/05/07</sup> ~~11/20/07~~  
PROJECT NO. **07F6208**  
ATTENTION: **Sandra Bowman** *Ann Sullivan*  
RE: **Animal Care & Control Facility** *115177*

- WE ARE SENDING YOU
- Attached
  - Under separate cover
  - Shop drawings
  - Prints
  - Copy of letter
  - Change order
  - via Hand Delivery the following items:
  - Reproducible
  - Sketches
  - Calculations
  - Other
  - Specification

COPIES	DATE	NO.	DESCRIPTION	ACTION
1	11/20/07	1	Application for Animal Crematory Air General Permit	For Approval
1	11/20/07	1	Check no. 0002350930 - Application fee \$100	

THESE ARE TRANSMITTED as checked below:

- A  For approval
- B  For your use
- C  As requested
- D  For review and comment
- E  FOR BID DUE
- F  No exceptions taken
- G  Make corrections noted
- H  Revise and resubmit
- I  Rejected - see remarks
- J  Submit  copies for distribution
- K  Return  corrected prints
- L  Other - See Remarks
- M

REMARKS

COPY TO: File, Anil Patel - CID

SIGNED: Annie Bactol

FINANCE & ACCOUNTING  
 2007 DEC -7 PM 3:00  
 TALLAHASSEE, FL 32301

If enclosures are not as noted, please notify us at once.

**Florida Department of Environmental Protection  
Cash Receiving Application (CRA)  
Cashlisting by Deposit #: 281326 thru 281326  
Printed: 12/7/2007 4:50:57 PM - Page 8**

Cashlisting: **65519** Cashlist Area: **3755** Description: **DIV OF AIR RESOURCES MGMT.**  
 Deposit No: **281326** Date Deposited: **12/07/2007** 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	46003		608948		COUNTY OF PALM BEACH BCC	0002350930	\$100.00	0990300 <i>12/18/2007 - AC</i> <i>0990300 004</i>	852165	758009	PFTF
<b>Object Code 002272 Subtotal:</b>							\$100.00				
002278	45988	479018	608855		MORAN ENVIRONMENTAL RECOVERY,	041332	\$100.00	46252	852139	757898	APCTF
	45988	479019	608856		MORAN ENVIRONMENTAL RECOVERY,	041333	\$200.00	46194	852140	757899	APCTF
<b>Object Code 002278 Subtotal:</b>							\$300.00				
002303	45988	479017	608854		ORANGE COUNTY, BOCC	0000637685	\$900.00		852136	757897	PFTF
<b>Object Code 002303 Subtotal:</b>							\$900.00				
002304	45988	479017	608854		ORANGE COUNTY, BOCC	0000637685	\$20.00		852137	757897	PFTF
<b>Object Code 002304 Subtotal:</b>							\$20.00				
002309	45988	479017	608854		ORANGE COUNTY, BOCC	0000637685	\$40.00		852138	757897	PFTF
<b>Object Code 002309 Subtotal:</b>							\$40.00				
<b>Cashlisting 65519 Total:</b>							\$1,360.00				

