

RECEIVED

JAN 16 2008

ANIMAL CREMATORY  
AIR GENERAL PERMIT REGISTRATION FORM Bureau of Air Monitoring  
& Mobile Sources

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)

1030136-008

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.)

PET ANGEL WORLD SERVICES (FLORIDA) LLC

**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.)

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

Street Address: 6225 72ND AVE. N.

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)

NOVEMBER 2007

**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: GLENN HANSON, CEO

Owner/Authorized Representative Mailing Address

Organization/Firm: PET ANGEL WORLD SERVICES, LLC

Street Address: PO BOX 878

City: WILBRAHAM, MA County: HAMPDEN Zip Code: 01095

Owner/Authorized Representative Telephone Numbers

Telephone:

Fax:

Cell phone (optional): 413-374-5901

413-596-4439

**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: CARL SPOETH, VP TECHNICAL SERVICES

Facility Contact Mailing Address

Organization/Firm: PET ANGEL WORLD SERVICES (FLORIDA) LLC

Street Address: 6225 72ND AVE. N.

City: PINELLAS PARK County: PINELLAS Zip Code: 33781

Facility Contact Telephone Numbers

Telephone: 727-548-1456

Fax: 727-545-3141

Cell phone (optional): 727-919-8018

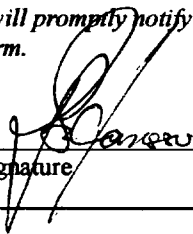
**Owner/Authorized Representative Statement**

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



Date

1-15-08

### 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.

THIS FACILITY HAS A MATTHEWS "POWER PAK II"  
AND A "CRAWFORD C-500P" ANIMAL CEMATORY.

"PET ANGEL WORLD SERVICES" WOULD LIKE TO ALSO  
ADD A THIRD CREMATION UNIT AS LISTED BELOW.

THERM-TEC MODEL S-27-T-1

GENERAL ARRANGEMENT, PROCESS FLOW AND  
EPA RETENTION CALCULATIONS ARE ATTACHED.

# ANIMAL CREMATION UNIT

*For Private & Batch Animal Cremations*

## MODEL S-27-T

Phone (503) 625-7575 (800) 292-9163 Fax (503) 625-8161

### Specifically Designed For :

- \* Private Pet Cremation Services
  - \* Veterinary Practices
  - \* Animal Control Facilities & Humane Societies
- Capacity**

**Besides Private Cremations, The S-27-T Can Serve as a 450 Pound Batch Load Cremator ( Six Hours 75 Pounds Per Hour )**

### Convenient Top Load & Lower Ash Removal Door

Top Load Door Lined With High Temperature Composite Ceramic Fiber  
28" x 31" Load Opening

### Load Height

31" Load Height

### No Visible Emission - No Odors

Meets State And Federal Regulations

### No Liquid Leakage

Built In Liquid Retention Dam

### Built For Long Life

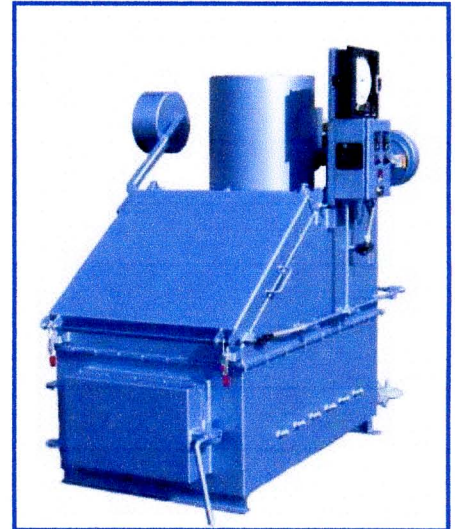
Constructed Of 3/16" Plate Steel,  
Lined With 1" 1,900 Insulation And 3" Heavy Duty Refractory

### Pre-piped & Pre-wired And Assembled At Factory

Shipment Of Main Chamber & Secondary Chamber Fully Assembled  
Two 6' Stack Sections Included - Installed On Site

### Automatic Temperature Control For Maximum Efficiency

Fuel Saving Feature Of High - Low Control For Secondary Burner  
On - Off Control For Primary Burner, Timer Controlled  
Fuel Saving Preheated Air For Primary & Secondary Chambers







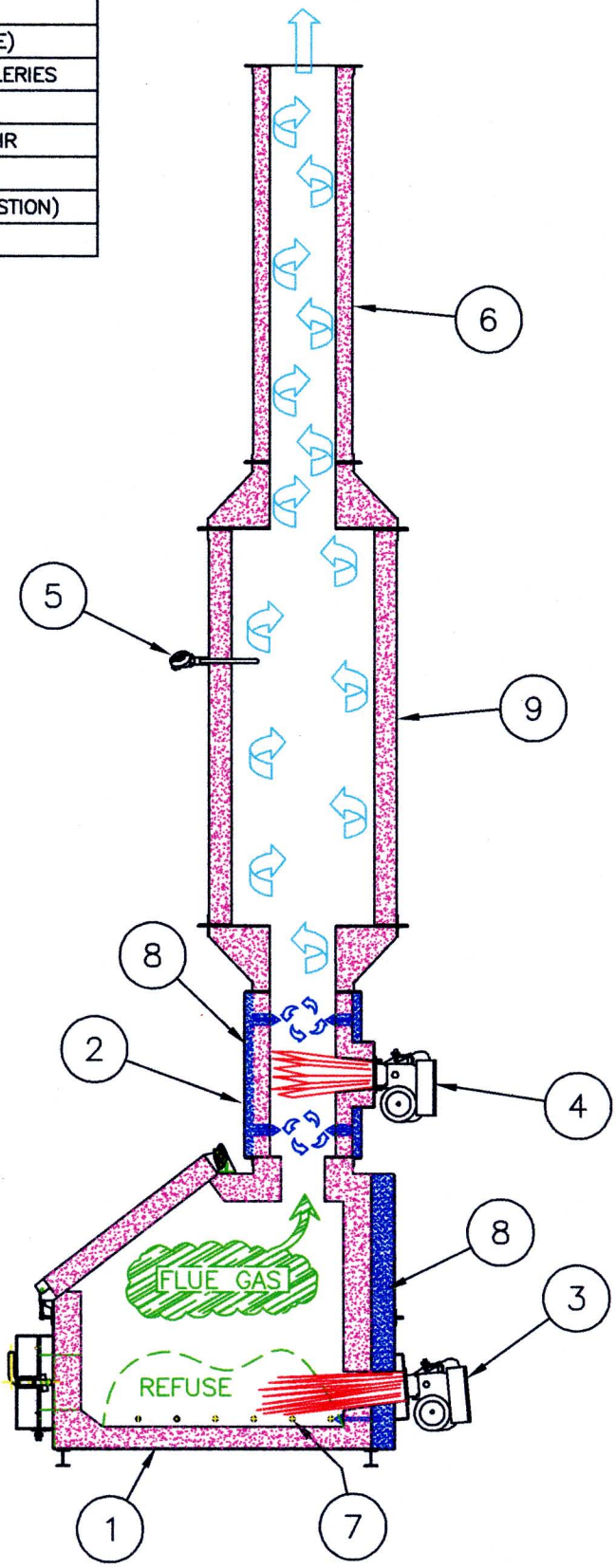
CONSTRUCTION	S-27-T
Dimensions : W x L x H	56" x 84" x 80"
Overall Height with stacks installed	18' 8"
Primary Chamber Volume	3/16" Plate Construction 29.02 Cu. Ft.
Stack Section	2 Each - 6' Flanged Section Included Total 12'
(10 Ga. Steel With 3" 2,300 Deg. Refractory Lining )	
Stack Diameter O.D.	18"
Load Door Opening	28" x 31"
Ash Removal Door - Opening Dimensions	18" x 10"

**THERM TEC, INC.** has designed, engineered and manufactured  
Animal Crematories And Human Crematories Since 1973 4-23-04

CONSTRUCTION		S-27-T
Primary Burner Firing Rate		400,000 Avg.
Secondary Burner Firing Rate		400,000 Avg.
Control Panel, NEMA 12 U.L. 508A		Yes
Natural Gas / Propane Requirements		800 CFH
Fuel Requirements ( # 2 Oil ) (15.2 Liters)		5.8 GPH
Electrical Requirements		115/60/1 30 AMP
Paint & Primer -High Temp.		
Weight	Pounds	7,676
Suggested Slab Size		10' x 12'

**DISTRIBUTED & SERVICED BY**

1	REFUSE CHAMBER
2	CONTROL CELL (AFTERBURNER)
3	REFUSE (PRIMARY) BURNER
4	EMISSION CONTROL (SECONDARY) BURNER
5	TEMPERATURE SENSOR (THERMOCOUPLE)
6	72" STACK SECTIONS
7	UNDERFIRE AIR PORTS (EACH SIDE)
8	PREHEATED COMBUSTION AIR GALLERIES
9	RETENTION SECTION
	BLOWER SUPPLIED COMBUSTION AIR
	GAS OR OIL BURNER FLAME
	FLUE GAS (PRODUCTS OF COMBUSTION)
	FLUE GAS (FINAL DISCHARGE)



T. SROFE 132333 11/16/07

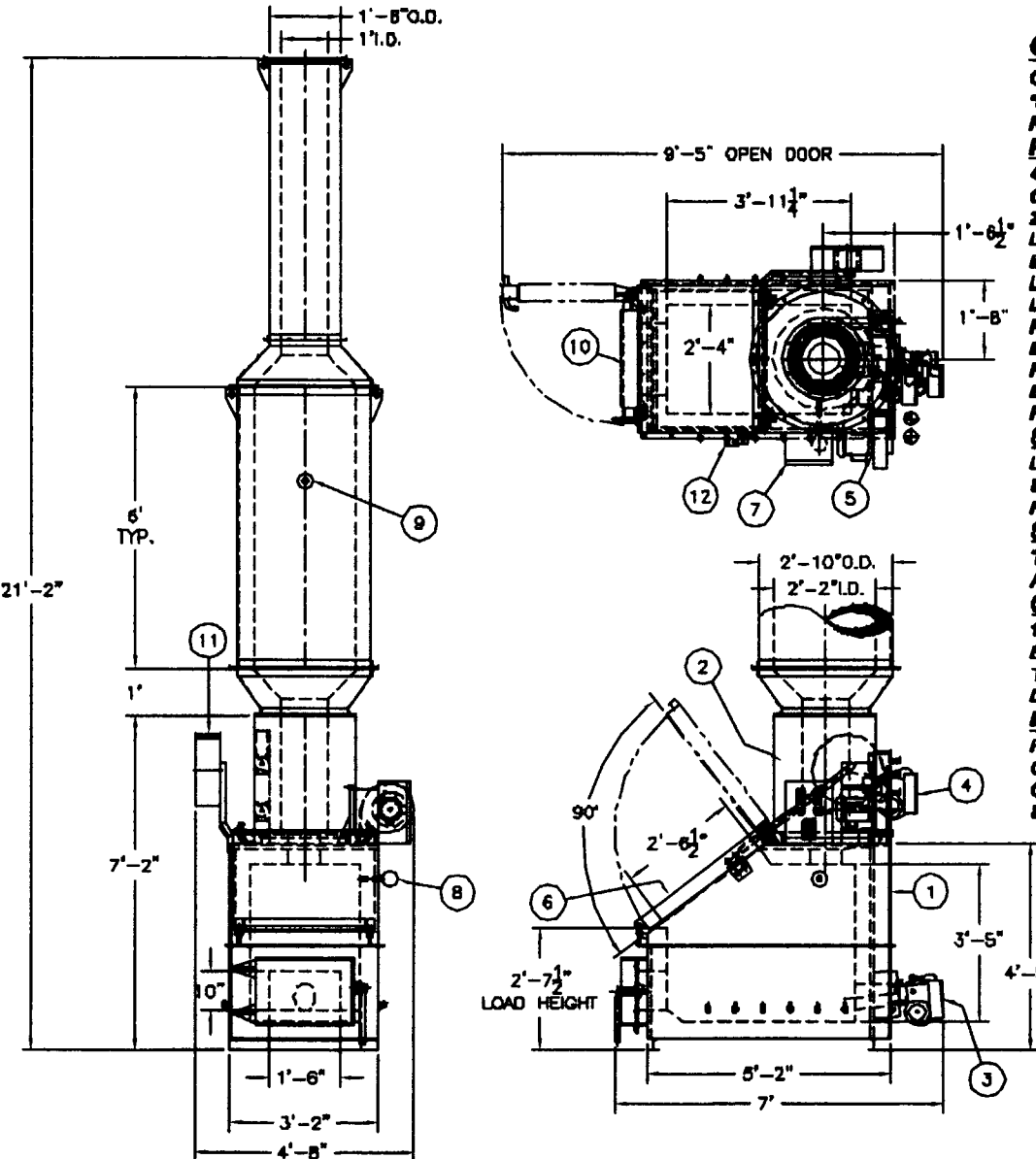
**thermabec**  
SHERWOOD, OREGON 97140

PROCESS FLOW DIAGRAM  
S-27-T-1 ANIMAL CREMATORY

CHANGE  
ASG-2256

SCALE 3/8"=1'-0"	DRAWN BY T. SROFE	DATE 11/16/07	CHECKED BY	TOLERANCES (EXCEPT AS NOTED)
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REVISION	DATE	BY	DESCRIPTION	L/C
			THIS DOCUMENT DISCLOSES SUBJECT MATTER TO WHICH THERMABEC, INC., SHERWOOD, OREGON HAS PROPRIETARY RIGHTS AND IS NOT TO BE USED IN ANY WAY WITHOUT CONSENT OF THERMABEC, INC., SHERWOOD, OREGON.	



**Company & Features**

Company - 20 Years In Business - Design, Engineering And Manufacturing  
 "State Of The Art" Design And Manufacturing - Latest Combustion Technology Available  
 Rigid Quality Control, Compliance To 18 Agency Standards Such As ASME, AISC, U.L., etc.  
**Primary Chamber**

400 Pound Batch Load Or Load Single Animals For Fibrous Cremation  
 Constructed With 3/16" Steel Plate, High Temperature Insulation, Heavy Duty Cast Refractory Lining  
 28 Cubic Feet Combustion Chamber  
 Load Door Opening 36 1/2" x 28"  
 Easy Loading - 31" From Ground Level  
 Load Door Lined With High Temperature Composite Material  
 Load Door Counterbalanced For Easy Opening  
 Refractory Lined Ash Remains Clean Out Door, Opening 18" x 16"  
 Built In Liquid Retention Dams  
 Full Combustion Air Adjustment  
 Easy To Service Exterior Air Passage Clean Out  
 Primary Burner, 800,000 Btu's, Operated At 400,000 Btu's

**Secondary Chamber (Afterburner)**

Lining, 3,000°F With Pre-Heated Air Jacket  
 Secondary Burner, 1,000,000 Btu's  
 Full Combustion Air Adjustment  
**Stacks**  
 Two 6" Sections Provided, 1 @ 24" One Second Retention Section w/Transition & 1 @ 18",  
 All Flanged Top And Bottom, 3" Refractory Lined

**Control System**

115 Volt, 30 Amp, Single Phase  
 Electrical Control Panel And Instruments All U.L. Laboratories Listed & 800A  
 Temperature Controls For Both Primary And Secondary Chambers For Fuel Efficiency  
 Digital Displays On Temperature Controls And Burn Timer  
**Installation**

Pre-Wired And Pre-Plumbed At Factory, Ready For Installation  
 Operations And Maintenance Manuals  
 Clean Out Tools, Bolts, Nuts, And Joint Compound For Installation  
 Shipping, Three Pieces, Main Chamber And Two Stack Sections

1	MODEL S-27-T CREMATORY
2	AFTERBURNER
3	PRIMARY BURNER
4	SECONDARY BURNER
5	COMBUSTION AIR FAN/MOTOR
6	LOAD DOOR
7	CONTROL PANEL
8	PRIMARY THERMOCOUPLE
9	SECONDARY THERMOCOUPLE
10	CLEAN-OUT DOOR
11	LOAD DOOR COUNTERWEIGHT
12	MAGNETIC DOOR LOCK(OPTIONAL)
A	FUEL SERVICE LINE (BY OTHERS)
B	ELECTRICAL SERVICE(BY OTHERS)

SCALE  
 3/8"=1'-0"  
 DRAWN BY  
 T.SHOPE  
 DATE  
 08/29/03  
 ORDERED BY  
 GENERAL ARRANGEMENT  
 S-27-T-1 CREMATORY

**thermtec**  
 SHERWOOD, OREGON 97140

DATE 10/01 4.07/02

**BSG-2754** (GRADE)

± 1/32"

REVISION	DATE	BY	DESCRIPTION

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## Therm Tec, Inc.

P.O. Box 1105 Tualatin, Oregon 97062  
 Phone 800-292-9163 503-625-7575 Fax 503-625-6161  
 E-mail thermtec@earthlink.net Web Page thermtec.com

### Retention Calculations For Secondary Combustion Chamber ( U.S. E.P.A. Calculation Formula )

## Model S-27-1 Anamal Crematory

<b>Formula</b>	$\frac{V}{Q_c}$	$V = 32.84$ $Q_c = 19.83$	$= \boxed{1.66}$
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**V=** Volume expressed in cubic feet

**Qc** Combustion of gas flow  
 expressed in actual cubic feet per second  
 ( Average ACFM - Four Test Reports)

ACFS (Actual cubic feet per second)	19.83
ACFM ( Actual Cubic Feet Per Minute @ temperature)	1,190
Secondary Combustion Chamber Temperature	1,800

<b>Volume :</b>			
<b>Of Chamber</b>	Secondary combustion I.D. in inches	28	
	Total length of chamber in inches	114	
	<b>Volume -Total Cubic Feet</b>	<b>32.84</b>	<b>32.84</b>

**Residence Time - Seconds** **1.66**

Residence Time Required	
Residence time @ 1/2 second =	9.917
Residence time @ 1 second =	19.833
Residence time @ 1 1/2 second =	29.750
Residence time @ 2 second =	39.667

**Typical Calculation used for flue gas retention time in secondary combustion chamber used by U.S. EPA**



13585 N.E. Whitaker Way • Portland, OR 97230  
Phone (503)255-5050 • Fax (503)255-0505  
www.horizonengineering.com

Project No. 1730

## SOURCE EVALUATION TEST REPORT

### **THERM-TEC, INC.** **Model S-27 Incinerator Exhaust**

#### **Particulate and Opacity** **Pathological Waste Burning**

January 22 & 23, 2002

Prepared for  
Therm-Tec, Inc.  
20525 SW Cipole Road  
Sherwood, Oregon 97140

by  
Michele R. Kinney &  
David R. Rossman, P.E.



Expires 12/31/02



## 2. INTRODUCTION

**2.1 Client:** Therm Tec, Inc.

**2.2 Physical Location:** 20525 SW Cipole Road  
Sherwood, Oregon 97140

**2.3 Mailing Address:** P.O. Box 1105  
Tualatin, Oregon 97062

### 2.4 Test Log

<b>Test Date</b>	<b>Source Name</b>	<b>Pollutants and Test Methods (EPA unless otherwise specified)</b>
January 22 & 23, 2002	Incinerator Model S-27	Method 5 Particulate Method 10 for CO

**2.5 Test Purpose:** Testing on the incinerator was for air quality information.

**2.6 Background Information:** None.

### 2.7 Participants

Horizon Personnel:

Tim J. Hertel, Team Leader  
Brian Galvin, Field Technician  
Michael E. Wallace, QA/QC Officer  
David R. Rossman, P.E., Report Review  
Michele R. Kinney, Technical Writer

Test Arranged by and Test Plan Sent to: Dean Robbins, Therm Tec, Inc.

Source Operator: Gary Thorn

**3. SUMMARY OF RESULTS****3.1 Table of Results**

Table 1

**Therm-Tec, Inc. Incinerator Model S-27 Exhaust – Test Results**

Test Date: January 22 &amp; 23, 2002

	Units	Run 1	Run 2	Run 3	Average
Start Time		11:53	14:37	10:10	
End Time		13:10	16:01	11:54	
Sampling Time	minutes	60	60	60	60
<b>Sampling Results</b>					
Particulate Conc. (Actual)	gr/scfd	0.037	0.027	0.020	0.028
Conc. @ 7% O <sub>2</sub>	gr/scfd	0.046	0.035	0.023	0.035
Rate	lb/hr	0.1	0.06	0.05	0.07
Opacity	%	0	0	0	0
Sample Volume	dscf	40.3	32.2	39.9	37.4
Sample Weight, Total	mg	97.7	55.3	52.1	68.4
Percent Isokinetic	%	104	100	105	104
O <sub>2</sub>	%	9.7	10.5	8.6	9.6
CO <sub>2</sub>	%	7.8	7.0	8.0	7.6
CO Concentration	ppmv	14	0	2	6
Rate	lb/hr	0.02	0.00	0.003	0.007
<b>Source Parameters</b>					
Flow Rate (Actual)	acf/min	1,400	1,070	1,280	1,250
Flow Rate (Standard)	dscf/min	306	252	301	286
Temperature	°F	1,594	1,435	1,446	1,491
Moisture	%	14.2	14.7	15.2	14.4
<b>Process/Production Data</b>					
Fuel – natural gas					
Waste Charge Weight (dogs)	lbs	441	→ Cont. R1	156	
Control Burner Temp.	°F	1,681	1,651	1,640	1,657
Refuse Burner Temp.	°F	1,444	1,681	1,138	1,421

**FedEx** Express **US Airbill**

8645 0028 5516

PU # 190

0200

Form 10 No.

**FedEx Retrieval Copy**

fedex.com 1800.GoFedEx 1800.463.3339

**1 From**  
 Date 1/15/2008 Sender's FedEx Account Number 233 818 838  
 Sender's Name GLENN HANSON Phone 413 374 5901  
 Company PER ANGELO WORLD SERVICES LLC  
 Address 37 BROOKMINT DR. Dept./Floor/Suite/Room \_\_\_\_\_  
 City WILBRAHAM State MA ZIP 01095

**2 Your Internal Billing Reference**

**3 To**  
 Recipient's Name DICK DIBBLE / FDEP Phone \_\_\_\_\_  
AIR GENERAL PERMIT PROGRAM  
 Company BUREAU OF AIR MONITORING MOBILE SOURCES  
 Recipient's Address 100 MAGNOLIA PLAZA Dept./Floor/Suite/Room \_\_\_\_\_  
 We cannot deliver to P.O. boxes or P.O. ZIP codes.  
 Address \_\_\_\_\_  
 To request a package be held at a specific FedEx location, print FedEx address here.  
 City TALLAHASSEE State FL ZIP 32301

**4a Express Package Service**

**1**  FedEx Priority Overnight Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
**5**  FedEx Standard Overnight Next business afternoon.\* Saturday Delivery NOT available.  
**6**  FedEx First Overnight Earliest next business morning delivery to select locations.\* Saturday Delivery NOT available.  
**3**  FedEx 2Day Second business day.\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
**20**  FedEx Express Saver Third business day.\* Saturday Delivery NOT available.  
 \* To most locations. FedEx Envelope rate not available. Minimum charge: One-pound rate.

**4b Express Freight Service**

**7**  FedEx 1Day Freight\* Next business day.\*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
**8**  FedEx 2Day Freight Second business day.\*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
**83**  FedEx 3Day Freight Third business day.\*\* Saturday Delivery NOT available.  
 \* Call for Confirmation. \*\* To most locations.

**5 Packaging**

**6**  FedEx Envelope\* **2**  FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. **3**  FedEx Box **4**  FedEx Tube **1**  Other  
 \* Declared value limit \$50.

**6 Special Handling**

**3**  SATURDAY Delivery Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.  
**1**  HOLD Weekday at FedEx Location Not available for FedEx First Overnight.  
**31**  HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.  
 Does this shipment contain dangerous goods? One box must be checked.  
 No **4**  Yes As per attached Shipper's Declaration.  Yes Shipper's Declaration not required.  
**6**  Dry Ice Dry ice, 9, UN 1845 \_\_\_\_\_ x \_\_\_\_\_ kg  Cargo Aircraft Only  
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

**7 Payment**

**1**  Sender Acct. No. in Section 1 will be billed. **2**  Recipient **3**  Third Party **4**  Credit Card **5**  Cash/Check  
 Bill to: \_\_\_\_\_ Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. \_\_\_\_\_

Total Packages 1 Total Weight \_\_\_\_\_  
 Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details. Credit Card Auth. \_\_\_\_\_

**8 Residential Delivery Signature Options**

**0**  No Signature Required Package may be left without obtaining a signature for delivery.  
**10**  Direct Signature Someone at recipient's address may sign for delivery. Fee applies.  
**34**  Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.  
**520**  
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