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& Mobile Sources

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)(0), F.A.C. (\$100 as of the effective date of this form)

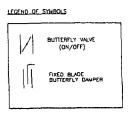
| Registration Type 075/925-00 |
|--|
| Check one: |
| INITIAL REGISTRATION - Notification of intent to: ☐ Construct and operate a proposed new facility. ☐ Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general 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.) Florida Cremation Autorsy 146 |
| Florida Cremation & Autopsy, LLC \(\frac{1}{22}\) \(\frac |
| Facility Location (Provide the physical location of the facility, not necessarily the mailing address.) Street Address: 12830 NW 42 Avenue City: Opalocka County: Miami Dade Zip Code: 33054-4434 |
| Facility Start-Up Date (Estimated start-up date of proposed new facility.) (N/A for existing facility) Tuly 2000 |

DEP Form No. 62-210.920(2)(c) Effective: January 10, 2007

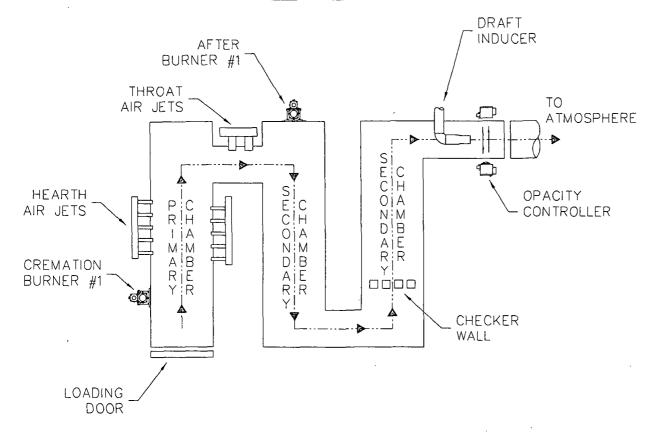
| Owner/Authorized Representative | : | |
|---|-------------------------------------|---|
| | | ifies that the facility is eligible to use this |
| | | |
| Print Name and Title: | A Montero, Mary | ge Munbler |
| air general permit.) Print Name and Title: | | , |
| | | |
| Owner/Authorized Representative M | ailing Address | 1/6 |
| Organization/Firm: Florila Street Address: 12830 NW | - Cremation & Autopsi | y, Lec |
| | Gounty: Mrami Rad | 7 7 Codo: 33059 - 443 |
| City: Opelocka | County: Mam Ma | Zip Code: 3 305 9 943 |
| Owner/Authorized Representative To | alanhana Numbara | |
| | | 786 427 1301 |
| Telephone: (305) 773269. | Fax. | 700 9 |
| Cell phone (optional): | | |
| | | |
| Facility Contact (If different from | | |
| | ger or person to be contacted regar | rding day-to-day operations at the facility.) |
| Print Name and Title: | | |
| | | |
| Facility Contact Mailing Address | | |
| Organization/Firm: | | |
| Street Address: | | |
| | Country | 7in Codo |
| City: | County: | Zip Code: |
| Facility Contact Telephone Numbers | | |
| Telephone: | Fax: | |
| Cell phone (optional): | | |
| | | |
| Owner/Authorized Representative | Statement | |
| This statement must be signed and da | | owner or authorized representative |
| - | • | he owner or operator of the facility |
| | | |
| | ermit Registration Form. I hereby | |
| | | n this registration form is eligible for |
| | | registration form are true, accurate |
| | | y described in this registration form so |
| as to comply with all applicable | standards for control of air pollut | ant 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 Depart form. | ment of any changes to the inform | ation contained in this registration |
| <i></i> | | |
| M | | 0= 11 2010 |
| | | 05/05/2010 |
| Signature | | Date |

DEP Form No. 62-210.920(2)(c) Effective: January 10, 2007

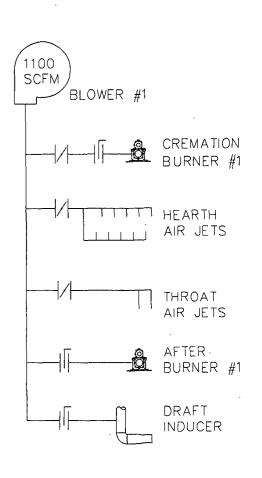
| Design Calculations |
|---|
| If this is an initial registration for a proposed new human crematory unit, provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees F. |
| Manufacturer's' 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. Installation of new Super Power Pak III human crematory unit at existing facility. See attached process flow diagram. |
| 5/19/10 NATURAL GAS FIRED per telecon w/ JORGE |
| MONTERO, OAR. W. Wille |
| |
| |
| |
| |







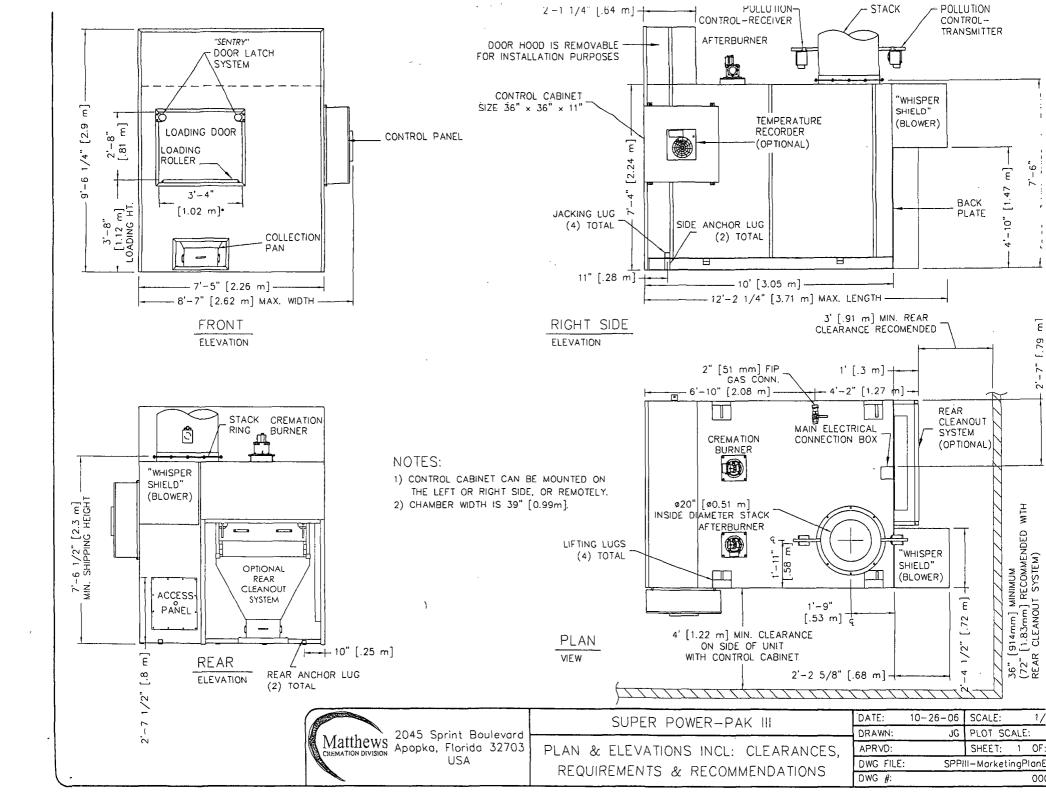
AIR SCHEMATIC

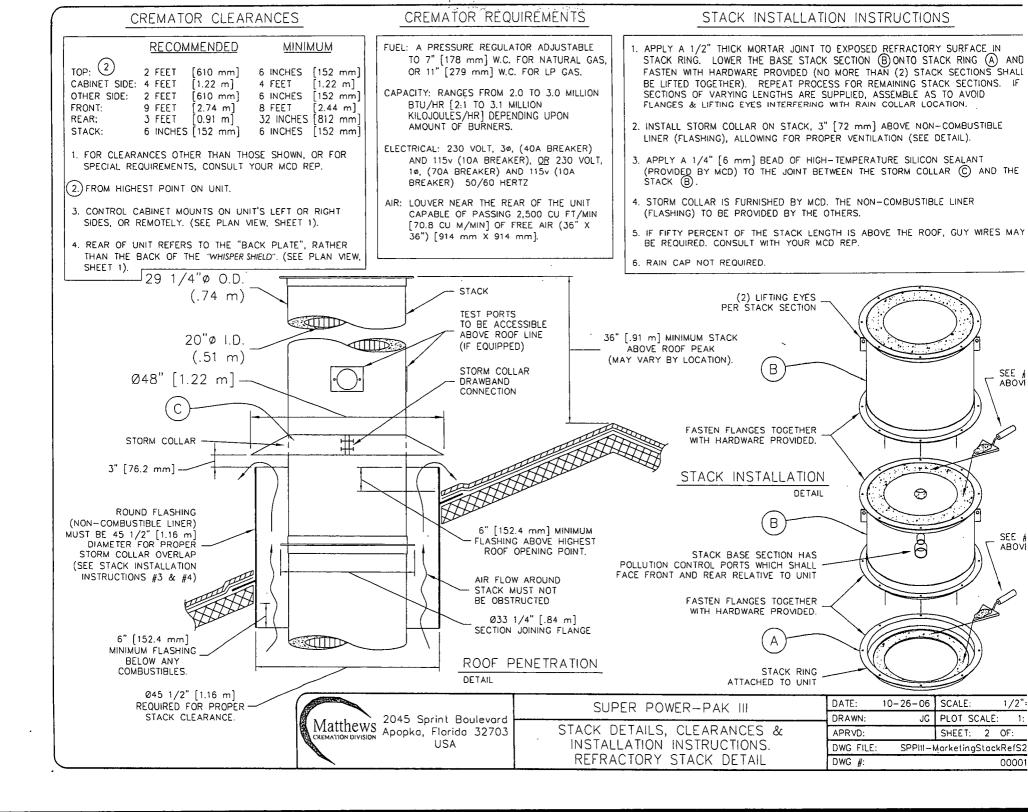


| Matthouse | 2045 Sprint Boulevard Apopka, Florida 32703 |
|--------------------|--|
| CREMATION DIVISION | Apopka, Florida 32703 |
| E. C. | USA |
| VIII. | |

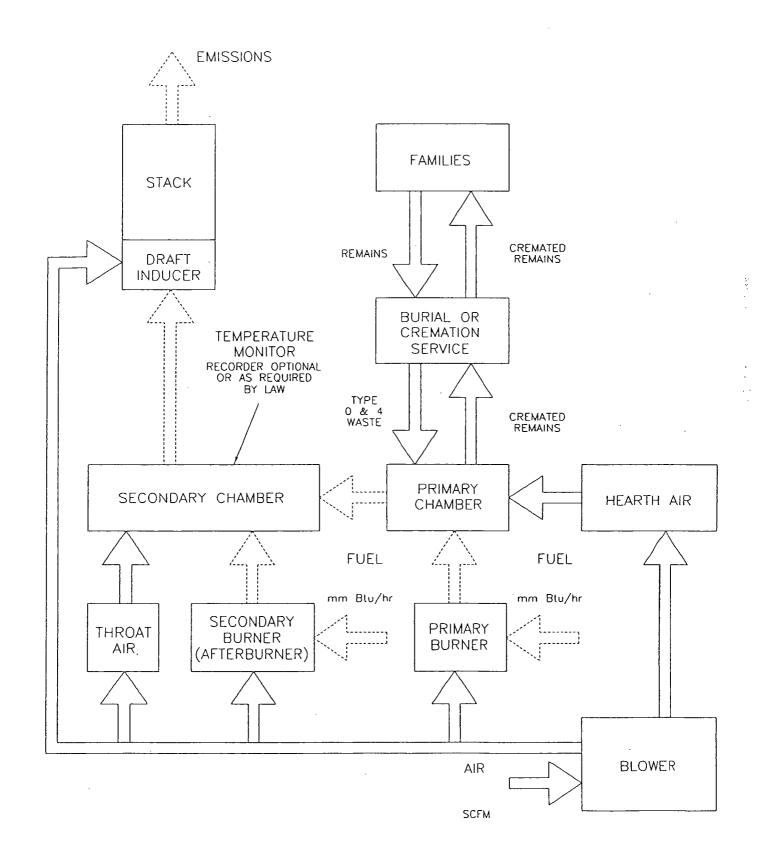
| SUPER | POWER | PAK III |
|-------|---------|---------|
| FLC | W DIAGR | AM |
| & AI | R SCHEM | ATIC |

| DATE: | 08-05-05 | SCALE: | | 1/ |
|----------|----------|-----------|------|------|
| DRAWN: | JC | PLOT SC | ALE | : |
| APRVD: | | SHEET: | 1 | OF: |
| DWG FILE | | SPPIIIFIo | wDic | AirS |
| DWG #: | | | | 000 |





PROCESS FLOW DIAGRAM CREMATOR



SPECIFICATIONS- Model Super Power-Pak

| 1. | Equipment TypeA. Model NoB. Underwriters Laboratories Listing and File No | . IE43-SPP |
|-----|---|--|
| 2. | Dimensions A. Footprint B. Maximum Length C. Maximum Width D. Maximum Height E. Chamber Loading Opening | . 12' - 2" (3.7 m) . 8' -7" (2.62 m) . 9' - 6¾" (2.91 m) |
| 3. | Weight | . 32,000 lbs. (14,500 kg) |
| 4. | Utility/Air Requirements A. Gross Gas Input, Natural or LP Gas Running Gas Pressure, Natural Gas Running Gas Pressure, LP Gas B. Electrical Supply C. Air Supply | 2,750,000 BTU/hr. (2,640,000 kJ/h) if operating temperature is greater then 1,600° F . 7 inches (180 mm) water column or greater . 11 inches (280 mm) water column or greater . 230 volt, 3Ø or 1Ø, 50/60 hz (other available) |
| 5. | Incineration Capacity | 200 lbs./hr. (91 kg/h) |
| 6. | Typical Loading Capacity of Waste Types | . 750 lbs. (340 kg/h) |
| 7. | Construction and Safety Standards | . Incineration Institute of America, Underwriters Laboratories, Canadian Standards Association |
| 8. | Steel Structure Construction A. Frame | . 3/8" (10 mm) plate . 3/16" (5 mm) plate . 12 gauge (3 mm) plate |
| 9. | Stack Construction A. Inner Wall B. Outer Wall | |
| 10. | Draft Nozzle Construction | . Schedule 40 type 316 s.s., welded connections |
| 11. | Main Chamber Door Construction A. Steel Shell B. Outer Refractory C. Inner Refractory | . 1" (25 mm) insulating block |

SPECIFICATIONS- Model Super Power-Pak

| 12. | Primary Chamber Wall Construction A. Outer Casing Wall. B. Inner Frame/Air Compartment. C. Inner Casing Wall D. Outer Refractory Wall E. Inner Refractory Wall | . 2" (51 mm) air compartment . 12 gauge (3 mm) sheet . 5" (127 mm) insulating block (minimum) |
|-----|---|---|
| 13. | Secondary Chamber Wall Construction A. Outer Casing Wall B. Inner Frame/Air Compartment C. Inner Casing Wall D. Outer Refractory Wall E. Inner Refractory Wall | 2" (51 mm) air compartment 12 gauge (3 mm) sheet 6" (150 mm) insulating block |
| 14. | Refractory Temperature Ratings A. Standard Firebrick B. Insulating Firebrick C. Castable Refractory (Hearth) D. Castable Refractory E. Insulating Block F. Bonding Mortar | 2,600° F. (1430° C) 2,550° F. (1370° C) 2,550° F. (1370° C) 1,900° F. (1040° C) |
| 15. | Chamber Volumes (not including external flues, stacks or chimneys) A. Primary Chamber B. Secondary Chamber | |
| 16. | Emission Control Features A. Secondary Chamber with Afterburner B. Opacity Monitor and Controller with Visual and Audible Alarms C. Auxiliary Air Control System D. Microprocessor Temperature Control System | Included Included |
| 17. | Operating Temperatures A. Primary Chamber B. Secondary Chamber | |
| 18. | Secondary Chamber Retention Time | > 1 second |
| 19. | Ash Removal | Door functions as a heat shield. Sweep out beneath rear door into hopper that fills collection pan. |
| 20. | Safety Interlocks A. High Gas Pressure B. Low Gas Pressure C. Blower Air Pressure D. Door Position | Optional Included |

E. Opacity Included

SPECIFICATIONS- Model Super Power-Pak

| F. Motor Starter Function G. Chamber Temperature. H. Motor Overload I. Flame Quality. J. Burner Safe Start | . Included . Included . Included |
|--|---|
| 21.Burner Description | The nozzle mix burners used on this cremation equipment are industrial quality and designed for incinerator use. |
| 22.Ultraviolet Flame Detection | Ultraviolet flame detection has proven to be the most reliable means of flame safety. The system is completely sealed in a quartz capsule to eliminate problems, caused by moisture and dust created in the cremation process, which effect flame rod detectors. |
| 23.Operating Panel Indicating Lights | |
| A. Safe Run | Included |
| B. Door Closed | |
| C. Pollution Alarm | · · · · · · · · · · · · · · · · · · · |
| D. Afterburner On (Secondary Burner) | |
| E. Cremation Burner On | |
| F. Temperature Control | Included |
| G. Afterburner (Secondary Burner) Reset | |
| H. Cremation Burner Reset | |
| I. Hearth Air | |
| J. Throat Air Off | Included |
| OA Automotic Times F | • |
| 24. Automatic Timer Functions | المماريطمط |
| A. Master Cycle | |
| B. Afterburner (Secondary Burner) | |
| D. Low Fire Cremation Burner | |
| E. Hearth Air | |
| F. Throat Air | |
| G. Pollution Monitoring | |
| H. Afterburner (Secondary Burner) Prepurge | |
| Cremation Burner Prepurge | |
| J. Cool Down | |
| | |
| 25.Exterior Finish | |
| A. Primer | |
| B. Finish | 2 coats textured finish |
| 26.Start-Up and Training | Startup of cremation equipment and training of operators to properly operate and maintain the equipment is performed on-site under actual operating conditions. Included is a comprehensive owner's manual, with details on the equipment, its components and proper operation. |

Air Emissions Testing IE43-SPP, Super Power-Pak Cremator

Metro Crematory, Inc. Ocoee, Florida

April 23, 2003

Testing Performed By:

Southern Environmental Sciences, Inc.

1.0 INTRODUCTION

Southern Environmental Sciences, Inc. conducted emissions testing of the Industrial Equipment & Engineering Company Model IE43-SPP, Super Power-Pak cremator on April 23, 2003. The unit is located at Metro Crematory, Inc.; 751 South Bluford Ave.; Ocoee, Florida 34761. Testing was conducted for the particulates, carbon monoxide, and visible emissions. Oxygen (O₂) concentrations were measured in order to correct results to 7% O₂.

2.0 SUMMARY OF RESULTS

The equipment was found to be in compliance with all applicable emission limiting standards. Results of the particulate and carbon monoxide testing are summarized in Table 1.

The average measured particulate emission concentration was 0.033 grains per dry standard cubit foot (corrected to 7% O₂).

The average measured carbon monoxide emission concentration was 16.5 parts per million by volume (corrected to 7% O₂).

A visible emissions evaluation was conducted over a 60-minute period. The maximum three minute average opacity was 0 percent.

The testing personnel detected no objectionable odor during the stack test.

Mr. Gregory Bryant of the Orange County Environmental Protection Division was present for the testing.

3.0 PROCESS DESCRIPTION

The IE43-SPP, Super Power-Pak cremator is a gas fired, multiple chamber design. A human body enclosed in a wooden or cardboard container or animal tissue is loaded into the primary chamber. The afterburner ignites and heats the secondary chamber to the required temperature. A process controller that automatically modulates the gas supply to the afterburner maintains the secondary chamber temperature.

After the secondary chamber has been heated sufficiently, the cremation burner ignites and the cremation process is initiated. A typical cremation takes 60 to 90 minutes, but the time may vary depending on the body weight and various other factors.

A gas flow schematic is shown in Figure 1. Process rates for the test are included in the appendix.

EMISSIONS TEST SUMMARY

REVISED 6/6/03

Company: METRO CREMATORY, INC.

Source: IE43-SUPER POWER PAK HUMAN CREMATORY

| Source: 1243 Out Entrottem Andrews | mana Ottermation | 11 | | |
|---|------------------|---------|---------|---------|
| | Run 1 | Run 2 | Run 3 | |
| Date of Run | 4/23/03 | 4/23/03 | 4/23/03 | |
| Start Time (24-hr. clock) | 1048 | 1410 | 1631 | |
| End Time (24-hr. clock) | 1150 | 1515 | 1734 | |
| Vol. Dry Gas Sampled Meter Cond. (DCF) | 42.00B | 38.747 | 41.028 | |
| Gas Meter Calibration Factor | 1.012 | 1.012 | 1.012 | |
| Barometric Pressure at Barom. (in, Hg.) | 30.02 | 30.01 | 29.97 | |
| Elev. Diff. Manom. to Barom. (ft.) | 0 | 0 | 0 | |
| Vol. Gas Sampled Std. Cond. (DSCF) | 41.027 | 37.645 | 39.507 | |
| Vol. Liquid Collected Std. Cond. (SCF) | 5.003 | 4.583 | 4.140 | |
| Moisture in Stack Gas (% Vol.) | 10.9 | 10.9 | 9.5 | |
| Molecular Weight Dry Stack Gas | 30.00 | 30.00 | 30.00 | |
| Molecular Weight Wet Stack Gas | 28.70 | 28.70 | 28.86 | |
| Stack Gas Static Press. (in. H2O gauge) | -0.04 | -0.04 | -0.05 | |
| Stack Gas Static Press. (in. Hg. abs.) | 30.02 | 30.01 | 29.97 | |
| Average Square Root Velocity Head | 0.208 | 0.183 | 0.191 | |
| Average Orifice Differential (in. H2O) | 1.530 | 1.262 | 1.435 | |
| Average Gas Meter Temperature (°F) | 91.0 | 93.3 | 97.8 | |
| Average Stack Gas Temperature (°F) | 1061.5 | 1067.7 | 1097.0 | |
| Pitot Tube Coefficient | 0.84 | 0.84 | 0.84 | |
| Stack Gas Vel. Stack Cond. (fr./sec.) | 19.9 | 17.54 | 18.43 | |
| Effective Stack Area (sq. ft.) | 2.41 | 2.41 | 2.41 | |
| Stack Gas Flow Rate Std. Cond. (DSCFM) | 891 | 782 | 818 | |
| Stack Gas Flow Rate Stack Cond. (ACFM) | 2,872 | 2,532 | 2,660 | |
| Net Time of Run (min.) | 60.0 | 60.0 | 60.0 | |
| Nozzle Diameter (in.) | 0.598 | 0.598 | 0.598 | |
| Percent Isokinetic | 94.7 | 99.0 | 99.4 | |
| Oxygen (%) | 12.9 | 13.2 | 13.9 | |
| Particulate Collected (mg.) | 18.9 | 71.2 | 43.2 | A |
| n - 1 - 5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | 0.007 | | 2 247 | Average |
| Particulate Emissions (gr./DSCF) | 0.007 | 0.029 | 0.017 | 0.018 |
| Particulate Emissions (gr./DSCF @ 7% 02) | 0.012 | 0.052 | 0.034 | 0.033 |
| Particulate Emissions (lb./hr.) | 0.100 | 0.200 | 0.100 | 0.133 |
| CO Emissions (ppm) | 18.90 | 4.90 | 4.00 | 9.28 |
| CO Emissions (ppm @ 7% O2) | 32.70 | 8.80 | 7.90 | 16.50 |
| CO Emissions (lb./hr.) | 0.074 | 0.017 | 0.014 | 0.035 |
| | | | | |

Note: Standard conditions 68°F, 29.92 in. Hg

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

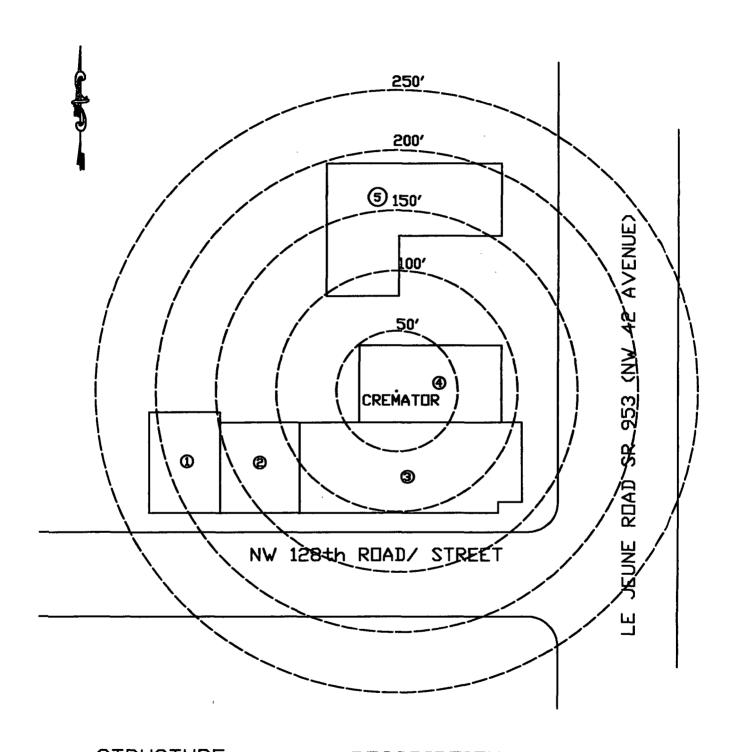
1204 North Wheeler Street, Plant City, Florida 33566 (813)752-5014

VISIBLE EMISSIONS EVALUATION

| COMPANY Metro Crematory Inc | | | | | | |
|--|---|--|--|--|--|--|
| UNIT IFE Super Power Pak | | | | | | |
| ADDRESS Bluford AVL, | | | | | | |
| Ocore, Florida | | | | | | |
| PERMIT NO. 0950022-002-AC | COMPLIANCE? YES X 0 NO 🗆 | | | | | |
| AIRS NO. 8950022 | EU NO. | | | | | |
| PROCESS RATE Adult Size Body | PERMITTED RATE AdvIT Size Body | | | | | |
| PROCESS EQUIPMENT IEEmodelIE | 43-sep crematory | | | | | |
| CONTROL EQUIRMENT | 1 n er | | | | | |
| OPERATING MODE Proganc Fired | AMBIENT TEMP. (*F) START 78 STOR 78 | | | | | |
| HEIGHT ABOVE GROUND LEVEL START ~ 20' STOP ~ 20 | HEIGHT REL. TO OBSERVER , | | | | | |
| DISTANCE FROM OBSERVER | DIRECTION FROM OBSERVER START 15 STOP 15 | | | | | |
| EMISSION COLOR | PLUME TYPE NA CONTIN. D. INTERMITTENT D. | | | | | |
| WATER DROPLETS PRESENT NO N YES D | IS WATER DROPLET PLUME NA ATTACHED ID DETACHED ID | | | | | |
| POINT IN THE PLUME AT WHICH O | OPACITY WAS DETERMINED STOP Stackerit | | | | | |
| DESCRIBE BACKGROUND START るドリ | STOP SKY | | | | | |
| BACKGROUND COLOR START Blue STOP Blue | SKY CONDITIONS STARTC/ RAC STOPC/RAC | | | | | |
| WIND SPEED IMPHI START 5-10 STOP 5-10 | WIND DIRECTION START NE STOP NW | | | | | |
| AVERAGE OPACITY FOR HIGHEST PERIOD 670 | RANGE OF OPAC. READINGS | | | | | |
| SOURCE LAYOUT SKETCH | DRAW NORTH ARROW | | | | | |
| | Emission Point | | | | | |
| Sun * Wind Plume and Stack | Observer's Pasition | | | | | |
| | 40. | | | | | |
| Sun Location Line | | | | | | |
| COMMENTS | | | | | | |
| | | | | | | |

| OBSERVATION DATE START TIME STOP TIME 423/03 1410 1510 | | | | | | | | | |
|--|------------|------|----------|------|----------|------------|------|-------|---------|
| SEC | 0 | 15 | 30 | 45 | SEC | 0 | 15 | 30 | 45 |
| MIN | 1 | | | | MIN | | | | |
| 0 | 0 | Ö | 0 | 0 | 30 | 0 | 0 | 0 | 0 |
| 1 | 0 | ٥ | 0 | 6 | 31 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | D | 0 |
| 3 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | Ú | 0 |
| 4 | O | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 |
| 6 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 |
| 8 | C | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | a | 0 |
| 10 | ٥ | ٥ | 0 | 0 | 40 | 0 | 0 | 0 | 0 |
| 11 | 0 | ٥ | 0 | 0 | 41 | 0 | 0 | 0 | 0 |
| 12 | C | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 |
| 13 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 |
| 14 | 0 | 0 | 0 | 0 | 44 | S | 0 | 0 | 0 |
| 15 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 |
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| 21 | 0 | 0 | 0 | 0 | _51 | Ó | 0 | 0 | 0 |
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| 24 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 0 |
| 25 | 0 | 0 | 0 | 0 | 55 | Ú | 0 | 0 | 0 |
| 26 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 0 |
| 27 | | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 0 |
| 28 | 0 | ٥ | 0 | 0 | 58 | 0 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 | | 59 | 0 | 0 | 8 | <u></u> |
| Obse | rver: | C | <u> </u> | 1~0 | J | 1-0 | aer | | |
| Certif | ied by | :F | 026 |) Ce | ertified | at:¬ | Tany | pa, 1 | FL |
| Date | Certifi | ed:2 | 118/0 | 2 Ex | cp. Da | te: 😸 | 5/20 | 103 | |
| I certify that all data provided to the person conducting the test was true and correct to the best of my knowledge: | | | | | | | | | |
| Signa | Signature: | | | | | | | | |
| Title: | | | | | | | | | |

PLOT PLAN



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