



**HUMAN CREMATORY
COMPLIANCE INSPECTION CHECKLIST**



INSPECTION TYPE: ANNUAL (INS1, INS2) COMPLAINT/DISCOVERY (CI)
 RE-INSPECTION (FUI) ARMS COMPLAINT NO: _____

FACILITY: Veterans Funeral Care		DISTRICT:
DBA/Site Name:		Southwest
ADDRESS: 15381 Roosevelt Boulevard Clearwater, FL		CONTACT PHONE: 727-467-0922
ARMS NO: 1030512 001	PERMIT NO: 1030512-003-AG	Expiration Date: 9/17/2016 Renewal Date: 8/18/2016 Test Date: 12/28/2000

EMISSION UNIT DESCRIPTION: Model IEE Power-Pak II. Maximum capacity of 750 pounds, loads greater than 300 pounds requires special operating procedures. Secondary (afterburner) chamber has a minimum temperature of 1600 degrees F. Training by Grove Scientific/Luis Llorens

INSPECTION DATE: 09/05/12
INSPECTION COMPLIANCE STATUS (check only one box)
 In Compliance; Minor Non-Compliance; Significant Non-Compliance

PART I: General Review:

1.	Permit File Review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.	Introduction and Entry <i>Comments:</i> I met with Blair Kriever who accompanied inspector on a tour of the facility, provided the necessary documentation, and answered questions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.	Is the Authorized Representative still: <u>James Rudolph</u> ? <i>Comments:</i> The e-mail address is:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4.	Is the facility contact still: James Rudolph? <i>Comments:</i> The e-mail address is:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.	If the answer to 3 or 4 is "No", did the facility provide an administrative update within 30 days? [62-210.310(2)(d), F.A.C.]	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PART II: TESTING REQUIREMENTS – Rule 62-296. 401(5), F.A.C.
 (check appropriate box(es), if a shaded box is checked, this would indicate noncompliance)

Compliance Demonstration [62-296.401(5)(h), F.A.C.]

- New Facility / New Process Equipment**–
Did this facility demonstrate initial compliance no later than 30 days after beginning operation?----- Yes No
- Existing Facilities**
Was an annual visible emissions compliance test conducted on each crematory unit for each calendar year: ----- Yes No

Test Reports

- Does the submitted visible emission test(s) demonstrate compliance with the 5 percent opacity, six-minute average, except that visible emissions not exceeding 15% opacity shall be allowed for up to six minutes in any one-hour period? [62-296.401(5)(b)1., F.A.C.]----- Yes No
The last visible emission test resulted in an opacity of 0% for the highest six minute average.
- Was the test conducted with the unit operating at a capacity of one (1) adult-sized cadaver? [62-296.401(5)(g)] Yes No
- Was the department notified at least 15 days prior to the test? [62-297.310(4)(a)9. F.A.C.]----- Yes No
- Was the required test report filed with the department as soon as practical, but no later than 45 days after the

PART II: TESTING REQUIREMENTS – Rule 62-296. 401(5), F.A.C.

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- test was completed? [62-297.310(8)(b)] ----- Yes No
5. Was the facility visible emissions test(s) conducted according to EPA Method 9? [62-297.401(9)(c), F.A.C.]----- Yes No
6. Was a visible emissions test(s) conducted by the inspector during this site visit according to EPA Method 9?----- Yes No
- a) The visible emission test resulted in an opacity of N/A % for the highest six minute average. ----- Yes No
- b) Did the test indicate the facility is operating in compliance with the opacity standard? ----- Yes No
7. Is there any reason to ask for a special test to determine compliance with the PM and CO standards? ----- Yes No

PART III: OPERATING/RECORDKEEPING REQUIREMENTS

(check appropriate box(es), if a shaded box is checked, this would indicate noncompliance)

1. Were there any objectionable odor(s) detected? ----- Yes No
An upwind/downwind survey of the facility was conducted. The observed parameters were:
Downwind odor level detected- 0 ; Wind direction – SSE Upwind odor level detected- 0 (1-10)
2. **Continuous Monitoring System** – [62-296.401(5)(i), F.A.C.]
- a) Is a continuous temperature monitoring system installed on each unit to record temperatures in the secondary chamber in accordance with the manufacturer’s instructions? ----- Yes No
- b) Is the temperature probe properly placed, at least at the distance where the 1.0 second gas residence time at 1,800¹ 1,600² degrees was determined? (see Part VI : Comments) ----- Yes No
- c) Are the following records kept on file, available for inspection for at least two years following the recording of such measurements, maintenance, reports and records? ----- Yes No
- 1) All temperature measurements ----- Yes No
- 2) All continuous monitoring systems, monitoring devices, and performance testing measurements; monitoring system all continuous performance evaluations ----- Yes No
- 3) All CEMS or monitoring device calibration checks (last performed on 11/19/09) ----- Yes No
- 4) Adjustments (air and afterburner adjustments were made on 2/8/12 during routine maint.) ----- Yes No
- 5) Preventive maintenance performed on systems/devices ----- Yes No
- 6) Corrective maintenance performed on systems/devices ----- Yes No
- 7) Are the temperature charts properly documented with operator name, operator indication of when cremation in the primary chamber was begun, date, time, and temperature markings ----- Yes No
- 8) Are all the above records available for at least 2 years? ----- Yes No
- a) Date range for records reviewed: From: 09/01/11 To: 08/30/12
- 9) Was the crematory unit installed after 2/1/07? If yes, go to 9) a) – c) ----- Yes No
(see Part VI : Comments)
- a) Is the crematory unit equipped and operated with a pollutant monitoring system to automatically control combustion based on continuous in-stack opacity measurement? ----- Yes No
- b) Is the system calibrated to restrict combustion in the primary chamber whenever any opacity exceeds 15% opacity ? ----- Yes No
- c) Has the opacity measurement system been cleaned and checked for proper operation in accordance with the manufacturer’s recommended maintenance schedule? ----- Yes No
- 1 – Application received on or after 8/30/89; 2 – Application received prior to 8/30/89
3. Was this crematory unit application to construct: [62-296.401(5)(c), F.A.C.] (check only one box)
- a) **BEFORE** August 30, 1989? (If this box checked, continue on to #4 and skip #5)
- b) **ON** or **AFTER** August 30, 1989? (If this box checked, skip #4 and continue on to #5)
4. If the application to construct was **BEFORE** August 30, 1989 is the:
- a) secondary chamber combustion zone providing at least a 1.0 second gas residence time @ **1600°F**? ----- Yes No
- b) actual operating temperature of the secondary chamber combustion zone no less than **1400°F** throughout the combustion process in the primary chamber? ----- Yes No
- c) cremation in the primary chamber begun after the secondary chamber combustion zone temperature is equal to or greater than **1400°F**? ----- Yes No
5. If the application to construct **ON** or **AFTER** August 30, 1989 is the:
- a) volume in the secondary combustion zone sufficient to provide at least a 1.0 second gas residence time @ **1800°F**? ----- Yes No

PART III: OPERATING/RECORDKEEPING REQUIREMENTS

(check appropriate box(es), if a shaded box is checked, this would indicate noncompliance)

- b) actual operating temperature of the secondary chamber combustion zone no less than 1600°F throughout the combustion process in the primary chamber? (see Part VI : Comments) ----- Yes No
- c) secondary chamber combustion zone temperature equal to or greater than 1600°F before the cremation process begins in the primary chamber? ----- Yes No
- 6. Are appropriate cremation containers containing no more than 0.5 % (percent) by weight chlorinated plastics used during the cremation of dead human bodies, as demonstrated by MSD sheet? ----- Yes No
[62-296.401(5)(d), F.A.C.]
- a) If the answer to question 6 above is YES, is certifying documentation from the manufacturer that they are composed of 0.5% or less by weight chlorinated plastics kept on file at the site for the duration of their use and for at least two years after their use? ----- Yes No
- b) Are there any other materials, including biomedical wastes (Rule 62-210.200, FAC) incinerated at this location? ----- Yes No

PART IV: Equipment Maintenance

(check appropriate box(es), if a shaded box is checked, this would indicate noncompliance)

Equipment Maintenance: – [62-296.401(5)(e), F.A.C.]

- 1. Is the crematory unit maintained in accordance with the manufacturer’s specifications? ----- Yes No
- 2. Are there maintenance/repair/adjustment records kept onsite for at least 2 years? ----- Yes No
- 3. Is there a written plan onsite which addresses the operating procedures during startup, shutdown and malfunction? ----- Yes No
- 4. Does the crematory allow for a visible check on the flame characteristics?----- Yes No
If yes go to a) – b)
- a) Was the flame characteristic visually checked at least once during each operating shift?----- Yes No
- b) Was the flame adjusted when necessary? ----- Yes No

PART V: Special Conditions And Procedures

(check appropriate box(es), if a shaded box is checked, this would indicate noncompliance)

Administrative Changes:

- 1. Were there any change in the name, address, or phone number of the facility or authorized representative not associated with a change in ownership or with a physical relocation of the facility or any emissions units or operations comprising the facility; or any other similar minor administrative change at the facility ----- Yes No
- 2. If yes, did the facility provide written notification within 30 days of the change? [62-210.310(2)(d), F.A.C.] ----- Yes No

Permit Effective Period – [62-210.310(3)(a), F.A.C.]

- 1. Is the general permit for this facility still within the 5 year effective period? ----- Yes No
- 2. Did the facility submit the new re-registration form at least 30 days prior to permit expiration? ----- Yes No

New or Modified Process Equipment or Change in Ownership - [62-210.310 (2)(b)2, F.A.C]

- C.. Since the last registration form submittal has there been
- a) Installation of any new process equipment? - ----- Yes No
- b) Alterations to existing process equipment without replacement? ----- Yes No
- c) Replacement of existing equipment with equipment that is substantially different? ----- Yes No
- d) A change in ownership? ----- Yes No
- If the any of the answers to 1a) – 1d) is **Yes** to any, a new registration form and appropriate fee should have been submitted 30 days prior to the change.----- Yes No

Noncompliance Notice: - [62-210.310(3)(i), F.A.C.]

- 1. Did the facility have any instances where they were unable comply with or will be unable to comply with any condition or limitation of the air general permit? ----- Yes No
- If the answer is **Yes**, proceed to a) and b).

- a) Did the owner or operator provide immediate notification to the Department? ----- Yes No
- b) Did the notification include:
1. A description of and cause of noncompliance?----- Yes No
2. Dates and times of noncompliance; or if not corrected, the anticipated time noncompliance is expected to continue and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance? ----- Yes No

PART VI: Comments

Maintenance records indicate that the cremation unit's refractory is in need of replacement. Mr. Blair Kriever indicated that he is planning to perform this repair procedure by the end of this calendar year (2012).

The records reviewed by the inspector appear to be complete and thoroughly documented.

No cremations were planned to occur during the day of inspection. No VE was performed during inspection.

Power to the cremation unit is supplied by a 220 V circuit and a 70 Amp breaker. The natural gas fuel is stored in an underground tank that located outside of the building. The tank has a gauge that is labeled as a percentage of the tank filled. The line connecting the gas to the cremation unit does not have any readable pressure gauge attached.

There were 4 incidences of self reported non-compliance since the last inspection on 07/12/11 relative to temperature drops below 1600 deg. F. Two of the occurrences were due to undetermined / unknown reasons. One incident was determined to be from a failing thermocouple (which was immediately replaced) and the other incident was due to a power failure. The temperature drops that occurred for unknown reasons lasted for 1-2 minutes each instance.

During a file review, the inspector discovered documentation from the initial permit and the initial permit application (prepared by AI Environmental Consulting Services, Inc.) that indicated the location of the thermocouple needed to be relocated to comply with Rule 62-296.401(5) now (i) "... to record temperature at a point or beyond where 1.0 second gas residence time is obtained in the secondary chamber ...". The initial permit document states under "*Monitoring Requirements – 20. Temperature Monitor - ... Upon start-up of the crematory the permittee shall relocate the thermocouple to a location that complies with this requirement.*" Within the General Permit Application for Veterans Funeral Care prepared by AI Environmental Consulting Services, Inc. dated August 2006, calculations and a diagram are provided in Attachment 2 detailing the proposed thermocouple location. The conclusion of these calculations state "The thermocouple must be located at the halfway point of the SCC second pass or 6.27 ft measured from the front of the unit at the second pass of the afterburner. As a conservative approach, we recommend using 7 ft measured from the front of the PowerPakII as the desired thermocouple location." Inspection of the unit on 9/5/12 showed the thermocouple location to be on the front of the unit. **On 9/21/12, the inspector received communication from Michael Tricoche with Matthews International Cremation Division providing calculations and an explanation stating that the current location of the thermocouple (front of unit) is sufficient to comply with the above mentioned Rule based on the most current specifications now provided for Mathews Cremation PPII.**

During inspection of cremation unit, inspector Farrington discovered that a pollution monitoring system is installed and operated on the unit. This cremation unit was installed before 2/1/07 and is not required to be equip or operate this system per F.A.C. 62-296.401 (5)(i). The pollution monitoring system that is installed consists of an opacity monitor located near the base of the stack. This system does automatically control or halt combustion based on an in-stack opacity measurement. There is a check documented during routine maintenance services to ensure that the pollution monitoring system is cleaned and functional. There is no record of any calibration or adjustment that has been performed on the pollution monitoring system.

Exit Interview: I informed Mr. Kriever that the facility appears to be in compliance at this time.

I suggested to Mr. Kriever that he consider adding a detailed procedure explaining how to operate the unit in the event of sudden temperature drops to his written operating manual. The current O&M plan contains a troubleshooting guide to help if the unit or components are not operating.

I asked Mr. Kriever to improve the documentation of dates in the self-reported non-compliance reports. A few of the reviewed reports had conflicting dates in various areas of the report. He stated that he will pay closer attention and correct in the future.

Brennan Farrington

Inspector's Name

09/05/12

Date of Inspection

Inspector's Signature

~ 07/13

Approximate Date of Next Inspection

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