



# HUMAN CREMATORY



## COMPLIANCE INSPECTION CHECKLIST

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

<b>AIRS ID#:</b> 0950276	<b>DATE:</b> <u>12/19/2012</u>	<b>ARRIVE:</b> <u>1:20 PM</u>	<b>DEPART:</b> <u>3:10 PM</u>
<b>FACILITY NAME:</b> WOODLAWN CREMATORY			
<b>FACILITY LOCATION:</b> 400 Woodlawn Cemetery Rd GOTHA 34734-5013			
<b>OWNER/AUTHORIZED REPRESENTATIVE:</b> THOMAS KNIGHT Email: thomas.knight@sci-us.com		<b>PHONE:</b> (407)293-9216 <b>Mobile:</b>	
<b>CONTACT NAME:</b> THOMAS KNIGHT Email: thomas.knight@sci-us.com		<b>PHONE:</b> (407)293-9216 <b>Mobile:</b>	
<b>ENTITLEMENT PERIOD:</b> 3/1/2010 / 3/1/2015 (effective date) (end date)			

### Facility Section

**PART I: INSPECTION COMPLIANCE STATUS** (check  only one box)

IN COMPLIANCE     MINOR Non-COMPLIANCE     SIGNIFICANT Non-COMPLIANCE

**PART II: ONSITE INTRODUCTORY MEETING** (check  only one box for each question)

1. Name(s) of facility representative(s): Brian Lang  
 Brief Notes: Certified Crematory Operator

2. Is the Authorized Representative still THOMAS KNIGHT? -----  Yes    ..No  
 If no, who is?: \_\_\_\_\_  
 If different, did the facility provide an administrative update within 30 days? -----  Yes    ..No

3. Is the facility contact still THOMAS KNIGHT? -----  Yes    ..No  
 If no, who is?: \_\_\_\_\_

4. Will facility be conducting VE test(s) during today's inspection? -----  Yes    ..No  
 If yes, was the compliance authority notified at least 15 days in advance? -----  Yes    ..No

**Emissions Unit Section**  
**1 – Human Crematory-two units w/opac&temp monitors, 200lbs/hr**

**PART I: FILE REVIEW PRIOR TO INSPECTION**

(check  only one box for each question)

1. a. Complete AC application or, if no AC permit, initial GP registration received on or after August 30, 1989? -----  Yes ..No
- b. If yes, were design calculations provided then 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 Fahrenheit? -----  Yes ..No
2. Crematory unit installed after February 1, 2007? -----  Yes ..No
3. Date of last inspection: 11/30/2011
4. Past Visible Emissions (VE) tests:
  - a. Was a VE test performed within each of the past 4 calendar years? -----  Yes ..No
  - b. Has a VE test been performed yet within the current calendar year? -----  Yes ..No
  - c. If first year of operation, was a VE test performed within 30 days of commencing operation? -----  N/A  Yes ..No
  - d. Date of last VE test: 11/30/2011
  - e. Was the VE test report filed with the compliance authority no later than 45 days after the test? -----  Yes ..No
  - f. Did the facility demonstrate compliance during the last VE test? -----  Yes ..No  
If no, what was the problem (if known)?

**PART II: VISIBLE EMISSIONS TESTING**

(check  only one box for each question)

1. **Was a visible emissions test conducted by the facility for this unit during this site visit?** -----  Yes ..No
  - a. Was the test conducted with the unit operating at a capacity of one adult-sized cadaver? -----  Yes ..No
  - b. Was the visible emissions test conducted according to EPA Method 9? -----  Yes ..No
  - c. The visible emission test resulted in an opacity of 0 % for the highest six minute average.
  - d. Did the visible emission test demonstrate compliance with the limit? -----  Yes ..No  
(5% opacity, six-minute average, except that visible emissions not exceeding 15% opacity shall be allowed for up to six minutes in any one-hour)
2. **Was a visible emissions test conducted by the inspector during this site visit?** -----  Yes ..No
  - a. Was the test conducted with the unit operating at a capacity of one (1) adult-sized cadaver? -----  Yes ..No
  - b. Was the visible emissions test conducted according to EPA Method 9? -----  Yes ..No
  - c. The visible emission test resulted in an opacity of 0 % for the highest six minute average.
  - d. Did the visible emission test demonstrate compliance with the limit? -----  Yes ..No
3. **Is there any reason to ask for a special test to determine compliance with the PM and CO standards?** -----  Yes ..No  
If yes, what reason?

**PART III: MONITORING/RECORDKEEPING REQUIREMENTS**

(check  only one box for each question)

1. **Were there any objectionable odors detected?** -----  Yes ..No  
An upwind/downwind survey of the facility was conducted. The observed parameters were:  
Downwind odor level detected-                      Wind direction -                      Upwind odor level detected-                      (1-10)
2. **Continuous Monitoring Systems –**
  - 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  1,800<sup>1</sup>  1,600<sup>2</sup> degrees was determined? -----  Yes ..No  
(Application or initial notification: <sup>1</sup> received on or after 8/30/89; <sup>2</sup> received before 8/30/89)

**PART III: MONITORING/RECORDKEEPING REQUIREMENTS** (continued)

- c. Are the following records kept on file, available for inspection, for at least the past two years?
- 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 (     ) ) -----  Yes ..No
  - 4) Adjustments -----  Yes ..No
  - 5) Preventive maintenance performed on systems/devices -----  Yes ..No
  - 6) Corrective maintenance performed on systems/devices -----  Yes ..No
- d. 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
- e. Was the crematory unit installed after **2/1/07**? If no, skip e.(1) – (3) -----  Yes ..No
- (1) 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
  - (2) Is the system calibrated to restrict combustion in the primary chamber whenever any opacity exceeds 15% opacity ? -----  Yes ..No
  - (3) Has the opacity measurement system been cleaned and checked for proper operation in accordance with the manufacturer’s recommended maintenance schedule? -----  Yes ..No

**PART IV: SECONDARY COMBUSTION ZONE TEMPERATURES**

(check  only one box for each question)

1. If the application to construct was **BEFORE** August 30, 1989 is the:
- a. actual operating temperature of the secondary chamber combustion zone no less than **1400°F** throughout the combustion process in the primary chamber? -----  Yes ..No
  - b. secondary chamber combustion zone temperature equal to or greater than **1400°F** before the cremation process begins in the primary chamber? -----  Yes ..No
2. If the application to construct **ON** or **AFTER** August 30, 1989 is the:
- a. the actual operating temperature of the secondary chamber combustion zone no less than **1600°F** throughout the combustion process in the primary chamber? -----  Yes ..No
  - b. secondary chamber combustion zone temperature equal to or greater than **1600°F** before the cremation process begins in the primary chamber? -----  Yes ..No

**PART V: ALLOWED MATERIALS**

(check  only one box for each question)

1. *Other than* human or fetal remains with appropriate containers or clothing, are any materials, including biomedical wastes, incinerated in the unit? -----  Yes ..No
2. Do cremation containers contain no more than 0.5 % (percent) by weight chlorinated plastics as certified by the manufacturer? -----  Yes ..No
- If yes, is the certifying documentation from the manufacturer kept on file for at least 2 years from use?  Yes ..No

**PART VI: EQUIPMENT MAINTENANCE**

(check  only one box for each question)

- 1. Is the crematory unit maintained in accordance with the manufacturer's specifications? -----  Yes ..No
- 2. Is there a written plan onsite which addresses the operating procedures during startup, shutdown and malfunction? -----  Yes ..No
- 3. Does the crematory allow for a visible check on the flame characteristics? -----  Yes ..No  
If no, skip 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 VII: EU INSPECTION COMPLIANCE STATUS** (check  only one box)

- IN COMPLIANCE
- MINOR Non-COMPLIANCE
- SIGNIFICANT Non-COMPLIANCE

**Facility Section (continued)**

**SPECIAL CONDITIONS AND PROCEDURES**

(check  only one box for each question)

Administrative Changes:

- 1. Were there any changes 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? -----  Yes ..No

New or Modified Process Equipment or Change in Ownership:

- 3. Since the last registration form submittal has there been -----  Yes ..No
  - 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 answer to 3a. – d. is Yes , was a new registration form and the appropriate fee submitted 30 days prior to the change? -----  Yes ..No

Ilka Bundy

12/19/2012

Inspector's Name (Please Print)

Date of Inspection

12/19/2013

Inspector's Signature

Approximate Date of Next Inspection

**COMMENTS:** Ilka Bundy met with Kaye Arlington, consultant from Arlington Environmental Services, Inc., and Brian Lang, certified crematory operator, on December 19, 2012, to audit the visible emission tests on two human cremation units. Both units are Matthews IE43 Super Power Pak. The units are rated at 200 lbs/hr. The process rate, per the application, is 150 lbs/hr of human remains. No plastic containers are used in the cremation process. The operators check the opacity monitors every two weeks for accuracy. The flame is checked for visible characteristics during each cycle. Records are maintained on site for at least 5 years. The east-most unit was charged with a 104 lb female body and the west-most unit was charged with a 73 lb female body. Both units had an observed opacity of zero percent. The temperature during the cremation was verified to be greater than 1600 ° F. It should be noted that Thomas Knight, the R.O. and certified crematory operator, was not present during the compliance test.