ANIMAL CREMATORY

COMPLIANCE INSPECTION CHECKLIST

Environmental Compliance

INSPECTION TYPE: ANNUAL (INS1, INS2) ☒ COMPLAINT/DISCOVERY (CI) ☐

RE-INSPECTION (FUI) ☐ ARMS COMPLAINT NO:

AIRS ID#: 1170051 **DATE:** 5/4/09 **ARRIVE:** 8:00 **DEPART:** 10:15

FACILITY NAME: SEMINOLE COUNTY ANIMAL CONTROL

FACILITY LOCATION: 232 BUSH BLVD.

SANFORD 32773

OWNER/AUTHORIZED REPRESENTATIVE: Morgan Woodward **PHONE:** (407)665-5201

CONTACT NAME: Mary Beth Lake **PHONE:** (407)665-5206

ENTITLEMENT PERIOD: 1/1/2007 (effective date) / 1/1/2012 (end date)

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

☐ IN COMPLIANCE ☐ MINOR Non-COMPLIANCE ☒ SIGNIFICANT Non-COMPLIANCE

PART II: TESTING/RECORDKEEPING REQUIREMENTS – Rule 62-296.401, F.A.C.

(check ☑ appropriate box(es))

1. Were there any objectionable odor(s) detected? ☐ Yes ☒ No
2. Was a visible emissions test conducted during this site visit according to EPA Method 9 (Ref.: Chapter 62-297, F.A.C.)? ☒ Yes ☐ No
3. In order to demonstrate individual source compliance, was an annual visible emissions test conducted 60 days prior to the AGP Notification form submission, and within 60 days prior to each anniversary date? (Rule 62-296.401(6)(j), F.A.C.) ☐ Yes ☐ No
4. In order to demonstrate individual source compliance were the remaining applicable standards testing completed within 60 days prior to the AGP Notification form submission? (Rule 62-210.300(4), F.A.C.) ☐ Yes ☒ No
   a) Carbon Monoxide (CO) emissions equal to or below the requirements of 100 parts per million by volume, dry basis, corrected to 7% O_2 on an hourly average basis and tested according to EPA Method 10 (Ref.: Chapter 62-297, F.A.C.)? ☐ Yes ☒ No
   b) Oxygen test performed according to EPA Method 3 (Ref.: Chapter 62-297, F.A.C.)? ☐ Yes ☒ No
   c) Particulate matter emissions test with results equal to or below the requirements of 0.080 grains per dry standard cubic foot (ft^3)of flue gas, corrected to 7% O_2 and tested according to EPA Method 5 (Ref.: Chapter62-297, F.A.C.)? ☐ Yes ☐ No
5. Was all emissions testing conducted with the source operating at the manufacturers recommended capacity? ☒ Yes ☐ No
6. Was CO & PM compliance demonstrated by submission of a test report for an identical crematory unit? ☐ Yes ☒ No
7. Was the Department notified at least 15 days prior to the date of the last formal compliance test? ☒ Yes ☐ No
8. Was the required test report filed with the Department as soon as practical, but no longer than 45 days after the test was completed? ☐ Yes ☐ No

PART III: OPERATING/RECORDKEEPING REQUIREMENTS – Rule 62-296.401, F.A.C.

(check ☑ appropriate box(es))

1. Is there **Continuous Emissions Monitoring System** (CEMS) equipment installed on each unit to record temperatures in the primary and secondary chambers where there is a 1.0 second gas residence time in the secondary chamber combustion zone in accordance with the manufacturer's instructions? ☒ Yes ☐ No
   a) Do temperature probes seem to be properly placed? ☒ Yes ☐ No
   b) 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?
      1) All measurements (including CEMS) ☒ Yes ☐ No
      2) Monitoring device ☒ Yes ☐ No
      3) Performance Testing Measurements ☒ Yes ☐ No
      4) CEMS Performance Evaluation ☒ Yes ☐ No
      5) All CEMS or monitoring device calibration checks ☒ Yes ☐ No
      6) Adjustments ☒ Yes ☐ No
      7) Preventive maintenance performed on systems/devices ☒ Yes ☐ No
      8) Corrective maintenance performed on systems/devices ☒ Yes ☐ No
2. Was this crematory unit constructed: **(check only one ☑ box)**
   a) ☐ **BEFORE** August 30, 1989? **(If this box checked, continue on to #3 and skip #4)**
   b) ☒ **ON** or **AFTER** August 30, 1989? **(If this box checked, skip #3 and continue on to #4)**
3. If constructed **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
   d) required monitoring equipment installed and operational, and providing continuous monitoring to record the temperature at the point or beyond where 1.0 second gas residence time is obtained in the secondary chamber combustion zone according to the manufacturer's instructions? ☐ Yes ☐ No
4. If constructed **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
   b) 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
   c) secondary chamber combustion zone temperature equal to or greater than **1600°F** before the cremation process begins in the primary chamber? ☒ Yes ☐ No
5. Are appropriate leak-proof containers containing no more than 0.5 % (percent) by weight chlorinated plastics used during the cremation of dead animals? ☐ Yes ☐ No
   a) If the answer to question 4 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) If plastic bags are used for the cremation of animals are they non-chlorinated and no less than 3 mils thick? ☐ Yes ☐ No
   c) Are dead animals, which have been used for medical or commercial experimentation, or other materials, including biomedical wastes (Rule 62-210.200, F.A.C.), incinerated at this location? ☐ Yes ☒ No
6. During this review period, was the largest batch load cremated 500 pounds per hour or less? ☐ Yes ☒ No
7. Have all crematory operators been trained and certified by a Department-approved training program? ☐ Yes ☐ No
   a) Are copies of the training certificates all crematory operators kept on file at the facility for the duration of the operator's employment & for an additional two years after termination of employment? ☐ Yes ☐ No

PART IV: SPECIAL CONDITIONS AND PROCEDURES – Rule 62-296.401, F.A.C.

A. New or Modified Process Equipment

1. Since the last inspection 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 substantially different than that noted on the most recent notification form?----------	☐Yes	☒No
d) If you answered **YES** to any of the above, did the owner submit a new and complete notification form and appropriate fee (Rule 62-4.050, F.A.C.) to the appropriate DEP or local program office?----------	☐Yes	☐No
2. If a crematory unit has been modified to the extent that a Department air construction permit was required, have all operators been retrained to operate the modified unit?----------	☐Yes	☐No
3. In the case of new or modified equipment, where a Department air construction permit was required, has the owner submitted copies of all operator training certificates?----------	☐Yes	☐No
a) submitted within the 15 day required window following the training?----------	☐Yes	☐No

Allen Rainey

Inspector's Name (Please Print) | Date of Inspection

Inspector's Signature | Approximate Date of Next Inspection

COMMENTS:

1. This INS03 inspection was performed to witness visible emissions testing performed by Kevett Mickle of Grove Scientific & Engineering. The single Crawford model CB1200 crematory was installed in 2006. It has serial #P/0608/567/CB1200/00. It burns natural gas, has a load capacity of 1,200 lbs. and a cremation rate of 300 lbs./hour. It is equipped with a Partlow model MRC 5000 chart recorder. Three photographs of the unit were taken.
2. The unit was off and at ambient outdoor air temperature upon my arrival. It had been preloaded with 1,100 lbs. of animal carcasses in a plastic bag. After the unit was turned on, the temperature in the secondary chamber attained 1,600 degrees F. within 25 minutes. The primary chamber temperature was 223 degrees F. at that point. The digital display monitor temperatures and chart temperatures were always in agreement.
3. Temperature charts were reviewed; only charts from 10/1/08 to 4/30/09 were available. According to Ms. Lake, older ones are archived. Ms. Lake stated in a subsequent phone call that she would contact me by 5/14/09 about providing copies of the archived charts (susequently received copies from January to October 2008). There are no indications of when cremations in the primary chamber begin. The unit Operating Instructions indicate the unit is programed to prevent ignition of the the primary chamber burner until the secondary chamber has reached 1,600 degrees F. According to a Matthews repair sheet, the touch screen and PLC were replaced by non OEM screen and PLC on 3/20/08. However, there is no indication on the temperature charts that the primary chamber burner ignited before the secondary chamber reached 1,600 degrees.
4. There are either no temperature markings or time gaps in the markings on the charts on the following dates: 2/25/08, 2/27/08, 10/21/08, 12/11/08, 12/13/08, 12/18/08, 12/24/08, 12/27/09, 1/10/09, 1/14/09, 1/15/09, 1/20/09, 1/24/09, 1/29/09, 3/25/09, 3/29/09 and 4/27/09. Ms. Lake subsequently reported that the chart pen was incorrectly installed.
5. Operation of the unit below 1,600 degrees F. occurred on the following dates: 1/4/08, 1/7/08, 1/9/08, 1/10/08, 1/13/08, 1/17/08, 2/14/08, 3/19/08, 5/14/08, 7/16/08, 8/22/08, 8/24/08, 10/9/08, 11/24/08, 12/1/08, 12/3/08, 12/7/08, 12/9/08, 2/6/09, 2/10/09, 2/13/09, 2/18/09, 3/12/09, 3/16/09 and 3/18/09. On eight of those days, "flame-out" is written on the chart. Ms. Lake stated nobody constantly watches the unit while it operates and that some operators return to find the unit has flamed-out. She stated within two weeks, operators will constantly supervise the unit.
6. According to the charts, cremations are not performed every day. All cremations are in bulk at 7 - 8 hours long per load and one load per day.
7. Animal remains are cremated in plastic bags. The Material Safety Data Sheet for Regrind-21382, from which the bags are made, indicates the bags contain no chlorinated plastics. The sheet was provided for the Department's files.
8. Ms. Lake reported that in February 2007, there was an electrial fire in the building adjacent to the unit. The unit was subsequently taken out of service.
9. Records obtained for the Department's file show (1) that Matthews Cremation Division equipped the unit with a non-OEM program logic controller (PLC) touch-screen monitor on 3/20/08, (2) the software installed on the PCL by Matthews was for a

human crematory, and (3) that Steve Bunker of Incinerator Repair Specialists replaced the non-OEM PLC with a Crawford OEM PLC touch-screen monitor on 8/7/08. Ms. Lake said that Mr. Bunker is a former Mathhews employee.