

HUMAN CREMATORIES INFORMATIONAL HANDOUT



What is the Purpose of the Air General Permit Registration Program?

- The Department of Environmental Protection (DEP) has established an Air General Permit (AGP) under Rule 62-210.310(5)(c), Florida Administrative Code, (F.A.C.), for Human Crematories. By simply registering to “use” the AGP, the owner or operator of an eligible facility is allowed to construct and operate the facility under the terms and conditions of the AGP rule. There is no need for the owner or operator to incur the additional time and expense of applying for an individual air construction or air operation permit.

Who is Eligible to use a Human Crematories AGP?

- Eligible facilities must contain no other emission units other than human and animal crematories that require Air General Permits. The owner or operator may use a human crematory air general permit and an animal crematory air general permit at the same facility, provided all human crematory units operate under a single human crematory air general permit and all animal crematory units operate under a single animal crematory air general permit.
- Eligible facilities must not emit ten (10) tons per year or more of any listed hazardous air pollutant (HAP), twenty-five (25) tons per year or more of any combination of HAPs, or 100 tons per year or more of any other regulated air pollutant.
- Existing facilities with an AO permit may renew that permit or apply for the AG permit at least thirty (30) days prior to the expiration date of the existing permit.

How Do I Register or Re-register for a Human Crematories AGP?

- To register, you may use the Department’s online Air General Permit Electronic Registration Submittal system (<http://www.fldepportal.com/DepPortal/go/apply-operate-airfacility/>), or complete the fillable registration worksheet and mail it to the Department at the address indicated in the worksheet instructions, along with the processing fee (\$100.00), payable to FDEP. Additional

information and the registration worksheet are here: <https://floridadep.gov/air/permitting-compliance/content/human-crematories>.

- The registration and associated processing fee must be submitted to the Department at least thirty (30) days prior to the expiration date of an existing facility's authorization.
- For a new facility, the registration must be submitted at least thirty (30) days before intending to use the AGP rule authority.
- If certain changes occur at an existing facility, the owner/operator must re-register for use of the AGP. Re-registration of the AGP is required for the following changes:
 - Change of ownership
 - The new owner/operator must submit a registration along with a fee of \$100.00, at least thirty (30) days before intending to use the AGP rule authority.
 - The current owner operator is encouraged to notify the Department prior to the sale of the facility.
 - Physical change in location
 - Proposed new construction
 - Modifications to equipment (installation of new process or air pollution equipment; alteration of existing process or control equipment; or replacement of existing process or control equipment with equipment substantially different in terms of capacity, method of operation, material processed, or intended use than that noted in the most recent registration form)

What is required by the Human Crematories AGP Rule?

General Requirements

- This Air General Permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit.
- A facility must not emit objectionable odors.

Emission Limiting Standards

- Visible emissions shall not exceed 5% opacity, except that visible emissions not exceeding 15% opacity shall be allowed for one six-minute period in any one-hour period.

- Particulate matter emissions shall not exceed 0.080 grains per dry standard cubic foot of flue gas, corrected to 7% O₂ .
- Carbon Monoxide (CO) emissions shall not exceed 100 parts per million by volume, dry basis, corrected to 7% O₂ on an hourly average basis.

Operating Temperatures

Operating temperatures for crematory units depend upon the date of original construction.

- Crematory units for which a complete application to construct a new unit or a new registration was received by the Department on or after August 30, 1989 the following parameters apply:
 - Human crematory units shall have design calculations to confirm sufficient volume in the secondary chamber combustion zone to provide at least a 1.0 second gas residence time at 1800°F. This information must be provided to the Department with the AG permit registration worksheet for the proposed new unit;
 - The actual operating temperature of the secondary chamber combustion zone shall be no less than 1600°F throughout the combustion process in the primary chamber; and
 - Cremation in the primary chamber and stack volumes shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1600°F.
- Crematory units for which a complete application to construct a new unit was received by the Department prior to August 30, 1989, the following operating parameters apply:
 - Maintain the actual operating temperature of the secondary chamber combustion zone at no less than 1400°F throughout the combustion process in the primary chamber; and
 - Cremation in the primary chamber shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1400°F.

Allowed Materials

- Human crematories shall cremate only human or fetal remains with appropriate containers. The remains may be clothed.
- Human crematories shall only cremate with containers having no more than 0.5%, by weight, chlorinated plastics which should be demonstrated by the manufacturer's data sheet. If containers are incinerated, documentation from the manufacturer certifying that they meet this requirement must be kept on file while in use and for at least five (5) years after their use.
- No other material, including biomedical waste shall be incinerated.

Equipment Maintenance

- All human crematory units shall be maintained in proper working order in accordance with the manufacturer's specifications to ensure the integrity and efficiency of the equipment.
- If a crematory unit contains a defect that affects the integrity or efficiency of the unit, the unit shall be taken out of service. The unit shall not be permitted until it has been repaired or adjusted.
- A written plan with operating procedures for startup, shutdown and malfunction shall be maintained and followed during those events.
- Each unit's burners shall be operated with the proper air-to-fuel ratio. The burner's flame characteristics shall be checked visually at least once during each operating shift and adjusted if necessary.
- Repair records on all crematory units shall be maintained onsite for at least five (5) years.

Test Methods and Procedures

- All emissions tests performed shall comply with the following requirements:
 - The reference test method for visible emissions shall be EPA Method 9.
 - The reference test method for carbon monoxide shall be EPA Method 10.
 - The reference test method for oxygen shall be EPA Method 3.
 - The reference test method for particulate emissions shall be EPA Method 5. The minimum sample shall be 30 dscf.
- Testing of emissions shall be conducted with the unit operating at a capacity one (1) adult-sized cadaver.

Initial Compliance Demonstration and Testing Frequency

- The facility shall have a performance test conducted for visible emissions no later than sixty (60) days after the unit commences initial operation, and annually thereafter.
- The owner/operator or authorized representative of any human crematory shall not be required to have performance tests for carbon monoxide or particulate matter, except when the Department, after investigation has good reason to require a special compliance test.
- Facilities in Broward, Duval County/City of Jacksonville, Hillsborough, Miami-Dade, Orange, Palm Beach, Pinellas, and Sarasota counties may have additional requirements and frequency of testing

for performance tests. Owners and operators located in those counties are responsible for contacting their local program to comply with local requirements.

Continuous Monitoring Requirements

- Each crematory unit must be equipped and operated with a continuous monitor to record 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.
- Each crematory unit installed after February 1, 2007, must be equipped and operated with a pollutant monitoring system to automatically control combustion based on continuous in-stack opacity measurement. The pollutant monitoring system shall be calibrated to restrict combustion in the primary chamber whenever any opacity exceeding 15 percent is occurring.
- The following records shall be recorded and maintained on-site readily available for review at the request of the Department. The file shall be retained for at least five (5) years following the recording of such measurements, maintenance, reports, and records.
 - All temperature measurements, including indication of when cremation in the primary chamber commenced, temperature markings, the date and time, and the name of the operator;
 - All continuous monitoring systems, monitoring devices, and performance testing measurements;
 - All continuous monitoring system performance evaluations;
 - All continuous monitoring system or monitoring device calibration checks; and
 - All adjustments, preventive maintenance, and corrective maintenance performed on these systems or devices shall be recorded in a permanent legible form available for inspection, including indication of when the opacity measurement system was cleaned and checked for proper operation in accordance with the manufacturer's recommended maintenance schedule.

Record-keeping

The owner or operator of the unit shall maintain records for:

- Particulate matter and carbon monoxide compliance demonstration – life of the equipment
- Visible emissions compliance demonstration – life of the equipment
- Continuous monitoring data - five (5) years
- Crematory container composition - five (5) years
- Repair records on all crematory units - five (5) years

Who do I contact regarding questions about AGPs and/or registration procedures?

- Please contact the Department's Small Business Environmental Assistance Program by phone at 1-800-722-7457 or by email at Small.Business@dep.state.fl.us.
- Facilities in **Broward, Duval County/City of Jacksonville, Hillsborough, Miami-Dade, Orange, Palm Beach, Pinellas, and Sarasota** counties may have additional requirements. Contact those local programs directly for their specific rules at <https://floridadep.gov/air/air-director/content/local-program-air-contacts>.

DISCLAIMER: This handout is for guidance purposes only. It is not official rule language and does not include a comprehensive listing of all environmental regulations that may be applicable to Human Crematories. Please refer to Rule 62-210.310(5)(c), F.A.C., for complete and up-to-date rule language.