



PERMIT TO CONSTRUCT

PERMIT BY RULE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct and operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Construction Permit Number: **042016-014**
Project Number: 2016-04-027
Installation ID: 043-0044

Installation Name and Address

Holden Cremation & Funeral Service LLC
8058 State Highway 14 East
Sparta, MO 65753
Christian County

Parent Company's Name and Address

Holden Cremation & Funeral Service LLC
8058 State Highway 14 East
Sparta, MO 65753

Installation Description:

Installation of a human crematory, US Cremation Equipment, Model CLASSIC

APR 29 2016

Effective Date


Director or Designee
Department of Natural Resources

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your permit-by-rule application and this permit. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

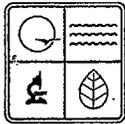
The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:

<http://dnr.mo.gov/regions/>



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 AIR POLLUTION CONTROL PROGRAM
 P.O. BOX 176, JEFFERSON CITY, MO 65102-0176

**APPLICATION FOR AUTHORITY TO CONSTRUCT
 PERMIT BY RULE NOTIFICATION
 CREMATORIES AND ANIMAL INCINERATORS**

APCP USE ONLY	
CHECK NO. 1576	CHECK RECEIVED (MM/DD/YY) 4-13-16
CHECK AMOUNT \$700. ⁰⁰ ^{400.00 Rule} ^{600.00}	CHECK DATE (MM/DD/YY) 4-11-16
PROJECT NO. 2016-04-027	PERMIT NO.

SECTION A: GENERAL NOTIFICATION INFORMATION - ALL NOTIFICATIONS MUST BE ACCOMPANIED BY A \$700 FEE.

SECTION A-1: GENERAL INSTALLATION INFORMATION

1. INSTALLATION NAME Holden Cremation & Funeral Service LLC		2. FIPS 29043	3. PLANT NO.
4. INSTALLATION STREET ADDRESS 8058 State Highway 14 East			
5. INSTALLATION MAILING ADDRESS			
6. CITY Sparta	STATE MO	ZIP CODE 65753	
7. COUNTY NAME Christian	8. 1/4, of 1/4, of SECTION 36 TOWNSHIP 27 RANGE 20		
9. PARENT COMPANY Holden Cremation and Funeral Service, LLC			
10. PARENT COMPANY MAILING ADDRESS Same as above			
11. CITY	STATE	ZIP CODE	
12. INSTALLATION CONTACT PERSON Same as above		13. CONTACT PERSON'S TITLE	
14. CONTACT PERSON'S MAILING ADDRESS			
15. INSTALLATION CONTACT TELEPHONE NO. ()		16. INSTALLATION CONTACT FAX NO. ()	
17. INSTALLATION CONTACT E-MAIL ADDRESS			
18. PROJECTED DATE TO COMMENCE CONSTRUCTION		19. PROJECT DATE OF OPERATION STARTUP	

SECTION A-2: INSTALLATION DESCRIPTION

20.
 Install a human crematory
 Model CLASSIC.
 Rated at 200 lbs/hr
 Manufactured by U.S. Cremation Equipment

RECEIVED
 2016 APR 13 AM 11:26
 AIR POLLUTION
 CONTROL PGM

SECTION A-3: CERTIFICATION STATEMENT

I certify that I have personally examined and am familiar with the information in this application and believe that the information submitted is accurate and complete. I am aware that making a false statement or misrepresentation in this application is grounds for denying or revoking this permit.

21. SIGNATURE OF RESPONSIBLE OFFICIAL <i>Matthew Holden</i>		22. DATE 04-11-2016
23. TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL Matthew Holden		24. RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER (417) 278-3455
25. TITLE OF RESPONSIBLE OFFICIAL OWNER		

SECTION B: SPECIAL CONDITIONS FOR CREMATORIES AND ANIMAL INCINERATORS

Construction and operation of this new air pollution source is subject to the special conditions listed below. These special conditions are based on the authority granted to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically RSMo. 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.062 "Construction Permits by Rule").

Please indicate by marking the appropriate box as to whether or not the emission source complies with the rule listed in the applicable emission limit or standard. If any of the applicable emission source boxes are checked no, your source is not eligible for a crematories and animal incinerators permit by rule.

This Permit By Rule applies only to Crematories and Animal Incinerators constructed after October 31, 2003.

SPECIAL CONDITION	EMISSION SOURCE COMPLY?	APPLICABLE EMISSION LIMIT OR STANDARD	METHOD OF COMPLIANCE
10 CSR 10-6.062(3)(B)2.A.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	The materials to be disposed of shall be limited to noninfectious human materials removed during surgery, labor and delivery, autopsy, or biopsy including body parts, tissues and fetuses, organs, bulk blood and body fluids, blood or tissue laboratory specimens, and other noninfectious anatomical remains or animal carcasses in whole or in part. The owner or operator shall minimize the amount of packaging fed to the incinerator, particularly plastic containing chlorine. The incinerators shall not be used to dispose of other non-biological medical wastes including, but not limited to, sharps, rubber gloves, intravenous bags, tubing, and metal parts.	Proper work practice.
10 CSR 10-6.062(3)(B)2.B.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	The manufacturer's rated capacity (burn rate) shall be two hundred (200) pounds per hour or less.	Proper work practice.
10 CSR 10-6.062(3)(B)2.C.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	The incinerator shall be a dual-chamber design.	Proper work practice.
10 CSR 10-6.062(3)(B)2.D.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Burners shall be located in each chamber, sized to manufacturer's specifications, and operated as necessary to maintain the minimum temperature requirements of subparagraph 10 CSR 10-6.062(3)(B)2.E. at all times when the unit is burning waste.	Proper work practice.
10 CSR 10-6.062(3)(B)2.E.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Excluding crematories, the second chamber must be designed to maintain a temperature of one thousand six hundred degrees Fahrenheit (1,600°F) or more with a gas residence time of one-half (1/2) second or more. The temperature shall be monitored with equipment that is accurate to plus or minus two percent (±2%) and continuously recorded. The thermocouples or radiation pyrometers shall be fitted to the incinerator and wired into a manual reset noise alarm such that if the temperature of either of the two (2) chambers falls below the minimum temperature above, the alarm will sound at which time plant personnel shall take immediate measures to either correct the problem or cease operation of the incinerator until the problem is corrected	Proper work practice and maintenance of proper alarm records. These records shall be maintained for not less than five (5) years, and they shall be immediately available to any Missouri Department of Natural Resources personnel upon request.
10 CSR 10-6.062(3)(B)2.F.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	There shall be no obstruction to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is operated. Properly installed and maintained spark arresters are not considered obstructions.	Proper work practice.

SECTION B: SPECIAL CONDITIONS FOR CREMATORIES AND ANIMAL INCINERATORS (CONTINUED)

SPECIAL CONDITION	EMISSION SOURCE COMPLY?	APPLICABLE EMISSION LIMIT OR STANDARD	METHOD OF COMPLIANCE
10 CSR 10-6.062(3)(B)2.G.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Each incinerator operator shall be trained in the incinerator operating procedures as developed by the American Society of Mechanical Engineers (ASME), by the incinerator manufacturer, or by a trained individual with more than one (1) year experience in the operation of the incinerator that the trainee will be operating. Minimum training shall include basic combustion control parameters of the incinerator and all emergency procedures to be followed should the incinerator malfunction or exceed operating parameters. An operator who meets the training requirements of this condition shall be on duty and immediately accessible during all periods of operation. The manufacturer's operating instructions and guidelines shall be posted at the unit and the unit shall be operated in accordance with these instructions.	Proper work practice and maintenance of proper operator training records. These records shall be maintained for not less than five (5) years, and they shall be immediately available to any Missouri Department of Natural Resources personnel upon request.
10 CSR 10-6.062(3)(B)2.H.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	The incinerator shall have an opacity of less than ten percent (10%) at all times.	Proper work practice such that no opacity violations are noted.
10 CSR 10-6.062(3)(B)2.I.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Heat shall be provided by the combustion of natural gas, liquid petroleum gas, or Number 2 fuel oil with less than three-tenths percent (0.3%) sulfur by weight, or by electric power.	Proper work practice.
10 CSR 10-6.062(3)(B)2.J.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	The operator shall maintain a log of all alarm trips and the resulting action taken. A written certification of the appropriate training received by the operator, with the date of training, that includes a list of the instructor's qualifications or ASME certification school shall be maintained for each operator. The operator shall maintain an accurate record of the monthly amount and type of waste combusted.	Determined through proper alarm and operator training record keeping. These records shall be maintained for not less than five (5) years, and they shall be immediately available to any Missouri Department of Natural Resources personnel upon request.

Attachment 1
Additional Information for Registration Applications

Additional Information for Registration Applications

- A. Process Description – Holden Cremation and Funeral Service provides cremation services for the local area (Christian County). They propose to install a gas fired U.S. Cremation Equipment Model “CLASSIC” human crematory. Technical literature and engineering drawings for the “CLASSIC” are included in Attachment 2 of this application and in Attachment 3 we have included an area map. The “CLASSIC” is a multi-chamber unit having an average of 200 lbs/hr human remains (approximately 1,000 Btu/lb) cremation rate. The primary chamber burner is rated at 500,000 Btu/hr, and the secondary chamber burner is rated at 1,500,000 Btu/hr, for a total of 2,000,000 Btu/hr. The equipment is fired with natural gas.
- B. Control of air pollution is achieved through the design of the “CLASSIC” crematory, including its ability to operate the secondary chamber between 1600 - 1850 degrees Fahrenheit at a residence time in excess of 1.0 second. The design also includes fully automatic PLC based controls, independent fuel/air systems, preheated combustion air, secondary chamber temperature monitor and recorder, primary burner temperature interlock (prevents primary burner from firing prior to the secondary chamber reaching its set point temperature), UV continuous scanning flame detectors on burners, and an opacity sensor which can temporarily suspend operation of the primary chamber burner.
- Air pollution control is demonstrated through similar source stack testing results (please see Attachment 4 for emission calculations and Attachment 5 for identical source stack test).
- C. Regulatory Discussion - This source complies with the requirements of the permit by rule conditions of the application, Section C.
- D. Toxic and HAP emissions (concentrations) from human cremation are very small and are typically considered negligible.
- E. Emission Summary and Calculations –. See Attachment 4 for tabular summary of emissions. Criteria pollutant emissions values, except CO and PM, are based on emission factors from AP-42, Table 2.1-12, and “Uncontrolled Emission Factors for Refuse Combustors Other Than Municipal Waste”. CO and PM are based on 100 PPM CO and 0.08 gr/dscfm.
- F. The installation is being performed by Holden Cremation and Funeral Service, LLC. No outside contractor will be used.
- G. The geographic coordinates for the facility are: Latitude is 37^o 00' 02.74" N, Longitude is 93^o 04' 23.67 W.

Attachment 2
U.S. Cremation Equipment Model "CLASSIC" Specifications and Engineering Drawings