State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL** **CERTIFIED MAIL**
**SENECA COUNTY**

Street Address:
50 West Town Street, Suite 700
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

**Application No: 03-17332**
**Fac ID:** 0374020236
**DATE: 9/18/2007**

Engle-Shook Funeral Home + Cremation Srv
Eric Shook
135 N. Washington Street
Tiffin, OH 44883

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

**CC:** **USEPA** **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

| | |
|---|---|
| **Permit To Install** | **Issue Date: 9/18/2007** |
| **Terms and Conditions** | **Effective Date: 9/18/2007** |

**FINAL PERMIT TO INSTALL 03-17332**

| | |
|---|---|
| Application Number: | 03-17332 |
| Facility ID: | 0374020236 |
| Permit Fee: | **$500** |
| Name of Facility: | Engle-Shook Funeral Home + Cremation Srv |
| Person to Contact: | Eric Shook |
| Address: | 135 N. Washington Street<br>Tiffin, OH 44883 |

Location of proposed air contaminant source(s) [emissions unit(s)]:
**135 N. Washington Street**
**Tiffin**, **Ohio**

Description of proposed emissions unit(s):
**Installation of a human crematory incinerator.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| Pollutant | Tons Per Year |
|---|---|
| PE | 0.66 |
| NOx | 1.01 |
| CO | 3.29 |
| VOC | 1.01 |

| | |
|---|---|
| SO2 | 0.83 |

## PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

### A. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

**Operations, Property, and/or Equipment - (N001) - human cremation multiple chamber incinerator #1.**

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|
| ORC 3704.03 (T)(4) | See A.2.a and A.2.b. |
| OAC rule 3745-31-05 (C) | See A.2.c. |
| ORC 3704.03 (F)<br>OAC rule 3745-114-01 | See C.2, C.3, and D.2. |
| OAC rule 3745-17-07 (A) | Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule. |
| OAC rule 3745-17-09 (B) | 0.10 pound particulate emissions (PE) per one hundred pounds of liquid, semi-solid or solid refuse and salvageable material charged |
| OAC rule 3745-17-09 (C) | See A.2.d. |

**2. Additional Terms and Conditions**

**2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE), nitrogen oxide emissions (NOx), sulfur dioxide emissions (SO2), or carbon monoxide emissions (CO) from this air contaminant source since the uncontrolled potential to emit for these pollutants is less than ten tons per year.

The annual PE rate for this emissions unit is 0.66 ton; determined by multiplying the maximum rated capacity of the incinerator of 150 pounds/hour by an emission factor of 0.10 pound PE/100 pounds charged [OAC rule 3745-17-09 (B)], a maximum operating schedule of 8,760 hours/year, and a conversion factor of 1 ton/2000 pounds.

The annual NOx emission rate for this emissions unit is 1.01 tons; determined by

multiplying the maximum rated capacity of the incinerator of 150 pounds/hour by an emission factor of 3.0 pounds NOx/ton processed (AP-42, Chapter 2.1, 10/96), a maximum operating schedule of 8,760 hours/year, and a conversion factor of 1 ton/2000 pounds.

The annual SO2 rate for this emissions unit is 0.83 ton; determined by multiplying the maximum rated capacity of the incinerator of 150 pounds/hour by an emission factor of 2.5 pounds SO2/ton processed (AP-42, Chapter 2.1, 10/96), a maximum operating schedule of 8,760 hours/year, and a conversion factor of 1 ton/2000 pounds.

The annual CO rate for this emissions unit is 3.29 tons; determined by multiplying the maximum rated capacity of the incinerator of 150 pounds/hour by an emission factor of 10.0 pounds CO/ton processed (AP-42, Chapter 2.1, 10/96), a maximum operating schedule of 8,760 hours/year, and a conversion factor of 1 ton/2000 pounds.

**2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) from this air contaminant source since the calculated annual emission rate for PE is less than ten tons per year taking into account the federally enforceable rule limit of 0.10 pound PE per one hundred pounds of liquid, semi-solid or solid refuse and salvageable material charged under OAC rule 3745-17-09 (B). This emission limit is equal to 0.66 ton PE/year.

**2.c** Permit to Install #03-17332 for this air contaminant source takes into account the use of an afterburner (secondary chamber) to control organic compound emissions (OC), whenever this air contaminant source is in operation as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3).

The controlled, annual OC emission rate from this emissions unit is 1.01 tons; determined by multiplying the maximum rated capacity of the incinerator of 150 pounds/hour by a controlled emission factor of 3.0 pounds VOC/ton processed (AP-42, Chapter 2.1, 10/96), a maximum operating schedule of 8,760 hours/year, and a conversion factor of 1 ton/2000 pounds.

**2.d** The human cremation multiple chamber incinerator, including all associated equipment and grounds, shall be designed, operated, and maintained so as to

prevent the emission of objectionable odors.

## B. Operational Restrictions

1. The human cremation multiple chamber incinerator, including all associated equipment, shall be designed, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

2. The permittee shall not charge the incinerator with "infectious waste" as defined in OAC rule 3745-75-01 (C)(5).

## C. Monitoring and/or Recordkeeping Requirements

1. The human cremation multiple chamber incinerator shall be installed, operated, and maintained in accordance with the manufacturer's specifications. The permittee shall install, operate, and properly maintain a temperature gauge which monitors the temperature of the secondary combustion chamber. The incinerator shall not be operated unless the temperature monitoring devices are operating properly.

   The permittee shall collect and record for each cremation, the temperature of the secondary chamber just prior to main burner ignition.

   Whenever the temperature deviates from the temperature specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the temperature reading from the secondary chamber immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The secondary combustion chamber shall be designed to have a residence time of not less than one second at a minimum of 1400 degrees Fahrenheit, as measured by the secondary chamber indicator, before ignition of the burner to start the cremation.

a. During startup-the temperature controller for the secondary chamber shall be set at a minimum of 1400 degrees Fahrenheit.

b. For the first cremation of the day, or for a subsequent cremation after the unit has entered or completed the cool-down state, the temperature must reach a minimum of 1400 degrees Fahrenheit, as measured by the secondary chamber indicator, before ignition of the burner to start the cremation.

The minimum temperature is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permit to install for this emissions unit, N001, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: Mercury (Hg)
   TLV (mg/m3): 0.01
   Maximum Hourly Emission Rate (lbs/hr): 0.004
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.35
   MAGLC (ug/m3): 0.21

3. The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the

following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

## D. Reporting Requirements

1. The permittee shall submit quarterly reports in accordance with the General Terms and Conditions of this permit that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the average combustion temperature fell below the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

## E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

   a. <u>Emission Limitation</u>:
   Visible particulate emissions from this emissions unit shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

   <u>Applicable Compliance Method</u>:
   If required, compliance with the particulate emission limitation shall be

determined in accordance with OAC rule 3745-17-03 (B)(5).

b. Emission Limitation:
0.10 pounds PE/100 pounds of material charged

Applicable Compliance Method:
If required, compliance with the particulate emission limitation shall be determined in accordance with OAC rule 3745-17-03 (B)(8).

## F. Miscellaneous Requirements

None

**Engle-Shook Funeral Home + Cremation Srv** **Facility ID: 0374020236**
**PTI Application: 03-17332**
**Issued: 9/18/2007**

Emissions Unit ID: **N001**

SIC CODE 7261 SCC CODE 5-02-001-01 EMISSIONS UNIT ID N001
EMISSIONS UNIT DESCRIPTION human cremation multiple chamber incinerator #1.
DATE INSTALLED upon issuance
EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|---|---|---|---|---|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | Attainment | 0.15 lb/hr | 0.66 | 0.10 lb/100 lbs | NA |
| $PM_{10}$ | Attainment | 0.15 lb/hr | 0.66 | | NA |
| Sulfur Dioxide | Attainment | 0.19 lb/hr | 0.83 | | |
| Organic Compounds | Attainment | 0.23 lb/hr | 1.01 | NA | NA |
| Nitrogen Oxides | Attainment | 0.23 lb/hr | 1.01 | NA | NA |
| Carbon Monoxide | Attainment | 0.75 lb/hr | 3.29 | NA | NA |
| Lead | | | | | |
| Other: Air Toxics | Attainment | 0.004 lb/hr | 0.02 | NA | NA |

APPLICABLE FEDERAL RULES:

NSPS? N NESHAP? N PSD? N OFFSET POLICY? N

| WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION? |
|---|
| **BAT is not an applicable rule.** |

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

IDENTIFY THE AIR CONTAMINANTS: Mercury