

ASSIGNMENT

to

GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Lane Regional Air Protection Agency
 1010 Main St
 Springfield, OR 97477
 (541) 736-1056

PERMITTEE:

**Behrends-Penfold Forest Valley Veterinary
 Clinic**
 dba Valley Pet Cremation
 2555 Mosby Creek Road
 Cottage Grove, OR 97424

INFORMATION RELIED UPON:

Application No.: 64424
 Date Received: 10/31/18

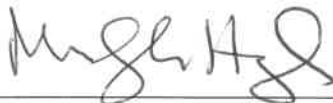
PLANT SITE LOCATION:

Same as above

LAND USE COMPATIBILITY
STATEMENT:

Approving Authority: City of Cottage
 Grove
 Approval Date: February 26, 2013

ASSIGNMENT: The permittee identified above is assigned by the Lane Regional Air Protection Agency to the General ACDP listed below in accordance with ORS 468A.040, LRAPA Title 37 Section 37-0060 and based on the land use compatibility findings included in the permit record.



Merlyn L. Hough, Director

NOV 2 2018

Dated

General Air Contaminant Discharge Permit Issued in Accordance with Section 37-0060:

| General ACDP Number | Expiration Date | Source Category Description | SIC |
|---------------------|-----------------|--------------------------------------------|------|
| AQGP-012 | 10/11/2028 | Crematorium (Title 37, Table 1, Part B.23) | 7261 |

SUPPLEMENTAL INFORMATION:

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------|
| Facility contact: | | |
| Name: | Paul Schiffgens | |
| Title: | DVM | |
| Phone number: | 541-942-9132 | |
| e-mail address: | paul@fvvet.com | |
| Permit Summary: | | |
| Source Test Requirement | No | N/A |
| NSPS (40 CFR Part 60) | No | N/A |
| NESHAP (40 CFR Part 63) | No | N/A |
| Reports Required: | | |
| Annual | Yes | 2/15 |
| NSPS | No | N/A |
| NESHAP | No | N/A |
| Other | No | N/A |
| Public Notice | Category I | |
| Application review report: | | |
| LRAPA has reviewed the application for assignment to the General ACDP and determined that the application is complete and the subject facility qualifies for assignment to the General ACDP. | | |



**GENERAL
AIR CONTAMINANT DISCHARGE PERMIT**

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056

This permit is issued in accordance with the provisions of ORS 468A.040 and LRAPA 37-0060

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY



Merlyn Hough, Director

OCT 11 2018

Dated

Crematory incinerators, human and/or animal crematories. NAICS 812220/SIC 7261

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1.0 PERMIT ASSIGNMENT

- 1.1 Qualifications** The permittee must meet all of the following conditions in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):
- a. The permittee is performing the cremation activities listed on the cover page of this permit, including supporting activities.
 - b. A Simple or Standard ACDP is not required for the source.
 - c. The source is not having ongoing, recurring or serious compliance problems.
- 1.2 Assignment** LRAPA will assign qualifying permittees to this permit that have and maintain a good record of compliance with LRAPA's regulations and that LRAPA determines would be appropriately regulated by a General ACDP. LRAPA may rescind assignment if the permittee no longer meets the requirements of LRAPA 37-0025(2), 37-0060 and the conditions of this permit.
- 1.3 Permitted Activities** The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as the permittee complies with the conditions of this permit. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain an associated General ACDP Attachment or a Simple or Standard ACDP, if applicable.
- 1.4 Relation to local land use laws** This permit is not valid outside of Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would violate any local land use or zoning laws. For operation outside of Lane County, contact Oregon Department of Environmental Quality for any necessary permits or notifications at (503) 229-5359. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 EMISSION STANDARDS AND LIMITS

- 2.1 Visible Emissions** The permittee must comply with the following visible emission limit, as applicable:

- a. No visible emissions must be present except for a period aggregating no more than three (3) minutes in any sixty (60) minute period.
 - b. At no time shall visible emissions exceed and opacity of 10%.
 - c. The visible emissions limitation in this condition is based upon a period or periods aggregating more than three-minutes in any one hour. Observations shall be recorded at 15-second intervals as specified in LRAPA 30-045(2) and 32-010(2).
 - d. The visible emissions standard in this condition does not apply to fugitive emissions from the source.
- 2.2 Particulate Matter Emissions** Particulate matter must not exceed 0.080 grains per dry standard cubic foot of exhaust gases corrected to 7% O₂ at standard conditions.
- 2.3 Fugitive Emissions** The permittee must comply with the following, where necessary:
- a. The permittee must take reasonable precautions to prevent fugitive particulate matter, including dust, from becoming airborne from all site operations from which it may be generated. Such reasonable precautions may include, but not limited to:
 - i. Controlling vehicle speeds on unpaved roadways;
 - ii. Application of water or other suitable means on unpaved roads or other surfaces which can create airborne dusts.
 - b. For purposes of this condition, fugitive particulate emissions are visible emissions that leave the permittee's property for a period or periods totaling more than 18 seconds in a six-minute period.
 - c. Fugitive particulate emissions are determined by EPA Method 22 at the downwind property boundary.
 - d. If requested by LRAPA, the permittee must develop and submit a fugitive emission control plan for LRAPA approval. The plan must include best management practices the permittee will implement to prevent any visible emissions from leaving the property of a source for more than 18 seconds in a six-minute period. The plan must also include monitoring by the permittee, following the procedures of EPA Method 22. Once approved by LRAPA, the permittee must follow the plan.

- 2.4 Particulate Matter Fallout** The permittee must not cause or permit the emission of particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person.
- 2.5 Nuisance and Odors** The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel.

3.0 OPERATION AND MAINTENANCE REQUIREMENTS

- 3.1 Work practices** The permittee may not burn any material other than human and/or animal bodies, containers, or other items normally allowed during cremations within the crematory incinerator(s). However, no waste material intended for disposal, including infectious waste as defined in LRAPA 30-010, may be cremated.
- 3.2 Temperature Requirements** The permittee must comply with the following standards, as applicable:
- a. For a crematory incinerator installed prior to March 13, 1993, the exit temperature at the final chamber (afterburner) must be at or above 1600°F during the entire cremation, with a residence time of at least 0.5 seconds.
 - i. The temperature within the final chamber (afterburner) must be at or above 1200°F prior to igniting the primary burner.
 - b. For a crematory incinerator installed or modified on or after March 13, 1993, the exit temperature at the final chamber (afterburner) must be at or above 1800°F during the entire cremation, with a residence time of at least 0.5 seconds.
 - i. The temperature within the final chamber (afterburner) must be at or above 1400°F prior to igniting the primary burner.
- 3.3 Operator Training** The crematory unit(s) must be operated at all times under the direction of individuals who have received training necessary for proper operation. The following must be available on-site at all times for LRAPA inspection:
- a. A description of an LRAPA-approved training program. New facilities must submit a description of the operator training program to LRAPA for approval within 60 days after the permit is assigned.

- b. A written statement signed by each operator stating that the operator has undergone and understood the training program.

4.0 PLANT SITE EMISSION LIMITS

4.1 Plant Site Emission Limits (PSEL)

The permittee must not allow plant site emissions to exceed the following:

| Pollutant | Limit | Units |
|-------------------|-------|---------------|
| PM | 24 | tons per year |
| PM ₁₀ | 14 | tons per year |
| PM _{2.5} | 9 | tons per year |
| SO ₂ | 39 | tons per year |
| NO _x | 39 | tons per year |
| CO | 99 | tons per year |
| VOC | 39 | tons per year |

4.2 Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

5.0 COMPLIANCE DEMONSTRATION

5.1 Visible Emissions and Particulate Matter Emissions

The permittee must demonstrate compliance with the visible emissions and particulate matter emission standards contained in Conditions 2.1 and 2.2:

- a. If the source is a new crematory incinerator;
- c. If the source exceeds the visible emission or particulate matter emission limits in Conditions 2.1 or 2.2; or
- c. At LRAPA's request.

5.2 Compliance Demonstration Procedures

As proof of compliance, the permittee must either:

- a. Conduct a source test in accordance with LRAPA 35-0120 through 35-0140 and submit to LRAPA results from the test that demonstrate compliance with the emission limits in Conditions 2.1 and 2.2; or,

- b. Submit to LRAPA, results of testing performed on a crematory incinerator that LRAPA agrees is comparable to the permittee's crematory incinerator(s).

5.3 Temperature Monitoring Requirement

The permittee must record and maintain continuous monitoring data of final chamber (afterburner) exit temperature for all crematory incinerators at the facility. The monitoring device must be installed and operated in accordance with the manufacturer's instructions, and must be located in an area of the final chamber (afterburner) that will allow evaluation of compliance with the temperature requirements in Condition 3.2. The continuous monitoring data shall reference the case number and actual date and time of cremation, or actual date and time of cremation outset shall be recorded separately with case number referenced on the temperature record.

5.4 PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000$$

where,

- E = pollutant emissions (ton/yr);
- Σ = symbol representing "summation of";
- EF = pollutant emission factor (see Condition 5.5);
- P = process production (tons of material cremated or hours of unit operation for PM/PM₁₀/PM_{2.5}; million cubic feet of natural gas combusted for SO₂, NO_x, CO and VOC)

5.5 Emission Factors

The permittee must use the default emission factors provided below for calculating pollutant emissions, unless alternative emission factors are approved in writing by LRAPA. The permittee may request or LRAPA may require use of alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by LRAPA.

| Emissions device or activity | Pollutant | Emission Factor (EF)* | Emission factor units |
|-------------------------------------|------------------------------------------|------------------------------|------------------------------------------------|
| Crematory Unit | PM/ PM ₁₀ / PM _{2.5} | source test result | lbs/hr or lbs/ton of material |
| | SO ₂ | 1.7 | lb/million cubic feet of natural gas combusted |
| | NO _x | 100 | lb/million cubic feet of natural gas combusted |

| | | | |
|--|-----|-----|------------------------------------------------|
| | CO | 84 | lb/million cubic feet of natural gas combusted |
| | VOC | 5.5 | lb/million cubic feet of natural gas combusted |

*- if fuel, other than natural gas, is used to operate crematory incinerator unit, contact your LRAPA representative for appropriate emission factors to be used to calculate pollutant emissions and determine compliance with the plant site emission limits.

6.0 RECORDKEEPING REQUIREMENTS

- | | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 Operation and Maintenance | <p>The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:</p> <ul style="list-style-type: none"> a. All records associated with continuous monitoring data including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports. b. Temperature records of afterburner exit temperature. c. The total amount of fuel combusted in the crematory incinerator(s) on a 12-consecutive calendar month basis. (1 therm = 100 cubic feet of natural gas) d. The total amount of material cremated (in tons) within each crematory incinerator on a 12-consecutive calendar month basis. e. The total number of hours each crematory incinerator is operated during a calendar year. |
| 6.2 Excess Emissions | <p>The permittee must maintain records of excess emissions as defined in LRAPA Title 36 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance.</p> |
| 6.3 Complaints | <p>The permittee must maintain a log of all air quality related complaints received. The log must contain the date and time the complaint was received, a description of the complaint, and a description of the corrective action taken.</p> |
| 6.4 Retention of Records | <p>Records must be maintained on site for a period of five (5) years and made available to LRAPA upon request.</p> |

7.0 REPORTING REQUIREMENTS

- 7.1 Excess Emissions** The permittee must notify LRAPA by telephone or in person of any excess emissions which are of a nature that could endanger public health.
- a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 8.2.
 - b. If the excess emissions occur during non-business hours, the permittee must notify LRAPA by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
 - c. The permittee must also submit follow-up reports when required by LRAPA.
- 7.2 Annual Report** The permittee must submit to LRAPA by **February 15** of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year:
- a. Operating parameters:
 - i. Number of crematory units on site.
 - ii. Total amount of natural gas burned (or other fuel) used in all crematory units on site.
 - iii. Tons of material cremated in each crematory unit; and
 - iv. Total number of hours each unit operated.
 - b. Records of all excess emissions events.
 - c. Summary of complaints relating to air quality received by permittee during the year.
 - d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
 - e. List major maintenance performed on pollution control equipment.
- 7.3 Initial Startup Notice** The permittee must notify LRAPA in writing of the date a new facility is started up. The notification must be submitted no later than seven (7) days after startup.

The permittee must notify LRAPA in writing using a LRAPA "Permit Application Form" within 60 days after the following:

- 7.4 **Notice of Change of Ownership or Company Name**
- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
 - b. Sale or exchange of the activity or facility.
- 7.5 **Construction or Modification Notices**
- The permittee must notify LRAPA in writing using an LRAPA "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with LRAPA 34-010 through 34-038 before:
- a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment;
 - b. Modifying or altering an existing source that may significantly affect the emission of air contaminants;
 - c. Making any physical change which increases emissions; or
 - d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation that result in increased emissions.
- 7.6 **Where to Send Reports and Notices**
- The reports, with the permit number prominently displayed, must be sent to LRAPA as identified in Condition 8.2.

8.0 ADMINISTRATIVE REQUIREMENTS

- 8.1 **Reassignment to the General ACDP**
- The permittee must complete an application for reassignment to this permit within 30 days prior to the expiration date of the General ACDP or within 30 days after the permit is reissued. LRAPA will notify the permittee when the permit is reissued.
- a. If LRAPA is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.
 - b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP unless LRAPA issues a Simple or Standard ACDP to the permittee.
 - c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with LRAPA

in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

- 8.2 LRAPA Address and Contact Number** All reports, notices, and applications should be directed to the LRAPA office. The LRAPA address and contact number is as follows:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
Telephone: 541-736-1056

- 8.3 LRAPA Website** Information about air quality permits and LRAPA's regulations may be obtained from the LRAPA web page at www.lrapa.org.

9.0 FEES

- 9.1 Annual Compliance Fee** The permittee must pay the Annual Compliance Determination Fee specified in LRAPA 37-8020, Table 2, Part 2.c., for a Class One General ACDP by **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by LRAPA regulations, will be mailed to the permittee prior to the above date.

- 9.2 Change of Ownership or Company Name Fee** The non-technical permit modification fee specified in LRAPA 37-8020, Table 2, Part 3.a. is due with an application for changing the ownership or the name of the company of a source assigned to this permit.

- 9.3 Where to Submit Fees** Fees must be submitted to:
Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477

10.0 GENERAL CONDITIONS AND DISCLAIMERS

- 10.1 Other Regulations** In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by LRAPA.

- 10.2 Conflicting Conditions** In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
- 10.3 Masking of Emissions** The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
- 10.4 LRAPA Access** The permittee must allow LRAPA's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468.095.
- 10.5 Permit Availability** The permittee must have a copy of the permit available at the facility at all times.
- 10.6 Open Burning** The permittee may not conduct any open burning except as allowed by LRAPA Title 47.
- 10.7 Asbestos** The permittee must comply with the asbestos abatement requirements in LRAPA Title 43 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.
- 10.8 Property Rights** The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
- 10.9 Termination, Revocation, or Modification** The Commission may modify or revoke this permit pursuant to 37-0060(3), (4), and 37-0082.

11.0 ABBREVIATIONS, ACRONYMS, DEFINITIONS

| | | | |
|-----------------|--------------------------------------------------------------------|-------------------|-----------------------------------------------------------|
| ACDP | Air Contaminant Discharge Permit | NSR | New Source Review |
| ASTM | American Society for Testing and Materials | O ₂ | Oxygen |
| AQMA | Air Quality Maintenance Area | OAR | Oregon Administrative Rules |
| calendar year | The 12-month period beginning January 1st and ending December 31st | ORS | Oregon Revised Statutes |
| CFR | Code of Federal Regulations | O&M | operation and maintenance |
| CO | carbon monoxide | PCD | pollution control device |
| date | mm/dd/yy | PM | particulate matter |
| DEQ | Oregon Department of Environmental Quality | PM _{2.5} | particulate matter less than 2.5 microns in size |
| dscf | dry standard cubic foot | PM ₁₀ | particulate matter less than 10 microns in size |
| EPA | US Environmental Protection Agency | ppm | part per million |
| FCAA | Federal Clean Air Act | ppmv | part per million by volume |
| gal | gallon(s) | PSD | Prevention of Significant Deterioration |
| GHGs | Greenhouse gasses in CO ₂ equivalent | PSEL | Plant Site Emission Limit |
| gr/dscf | grains per dry standard cubic foot | PTE | Potential to Emit |
| ID | identification number | RACT | Reasonably Available Control Technology |
| I&M | inspection and maintenance | scf | standard cubic foot |
| lb | pound | SER | Significant Emission Rate |
| MMBtu | million British thermal units | SERP | Source Emission Reduction Plan |
| MMcf | million cubic feet | SIC | Standard Industrial Code |
| NA | not applicable | SIP | State Implementation Plan |
| NO _x | nitrogen oxides | SO ₂ | sulfur dioxide |
| NSPS | New Source Performance Standard | VE | visible emissions |
| | | VOC | volatile organic compound |
| | | year | A period consisting of any 12-consecutive calendar months |

Lane Regional Air Protection Agency



**GENERAL
AIR CONTAMINANT DISCHARGE PERMIT
ASSESSMENT REPORT**

CREMATORY INCINERATORS

SOURCE DESCRIPTION AND QUALIFICATION

1. This General Permit is designed to regulate air contaminant emissions from crematory incinerators.
2. The facilities assigned to this General Permit have no other air pollution sources which require regulation beyond that specified in this permit or have other pollution sources that also qualify for General Permits.
3. Facilities eligible for assignment to this permit have not experienced recurring or serious compliance problems.

ASSESSMENT OF EMISSIONS

4. Facilities assigned to this General Permit are sources of PM, PM₁₀, PM_{2.5}, SO₂, CO, NO_x, VOC, HAP and GHG emissions. Pollutant emissions from these facilities are typically less than 1 ton per year.
5. LRAPA has assessed the level of emissions of all air pollutants from these facilities and determined that facilities complying with the operational limits and monitoring requirements of this permit have emission levels below the established levels of concern stated in the definitions of Significant Emission Rates in LRAPA Title 12.

SPECIFIC AIR PROGRAM APPLICABILITY

6. Facilities assigned to this General Permit are subject to visible emissions standards, particulate matter standards, and operating requirements in LRAPA Title 30, Sections 30-045 through 30-060. The permit contains requirements and limitations to ensure compliance with these standards.

COMPLIANCE ASSURANCE

7. New crematories are required to demonstrate compliance with the emissions limits by

conducting a stack source test shortly after beginning operations or providing results of tests performed on a similar type unit.

8. Permittees are required to maintain records associated with continuous secondary combustion chamber temperature monitoring data, operating parameters, excess emissions, and complaints received at the facility. These records must be maintained for a period of five years.
9. LRAPA staff members perform site inspections of the permitted facilities on a routine basis, and more frequently if complaints are received.

REVOCAION OF ASSIGNMENT

10. Any facility that fails to demonstrate compliance, generates complaints, or fails to conform to the requirements and limitations contained in the permit may have its assignment to the General Permit revoked. The facility would then be subject to a higher, more stringent level of permitting.

PUBLIC NOTICE

11. General Air Contaminant Discharge Permits are part of the LRAPA State Implementation Plan. As part of the permitting process, the public will be provided at least 30 days to submit written comments. LRAPA will review any comments and may modify the permits in response to the comments.

AQGP-012r, crematories