



## Southwest Clean Air Agency

11815 NE 99th Street, Suite 1294 • Vancouver, WA 98682-2322

(360) 574-3058 • Fax: (360) 576-0925

[www.swcleanair.org](http://www.swcleanair.org)

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October 29, 2015

Mr. James Hellen, President  
Peaceful Paws Cremation and Memorials, Inc.  
PO Box 1649  
Vancouver, WA 98668

Subject: Final Air Discharge Permit for Installation of New Crematory

Dear Mr. Hellen:

A final determination to issue Air Discharge Permit 15-3160 (ADP 15-3160) has been completed for Air Discharge Permit (ADP) Application CL-2057 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CL-2057 was published in the permit section of SWCAA's internet website on September 17, 2015. SWCAA did not receive a request for a public comment period in response to the public notice, and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 15-3160 and the associated Technical Support Document are available for public review in the permit section of SWCAA's internet website ([www.swcleanair.org/permitsADPfinals.asp](http://www.swcleanair.org/permitsADPfinals.asp)). Original copies are enclosed for your files.

This Air Discharge Permit may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt as provided in RCW 43.21B.

If you have any comments, or desire additional information, please contact me or Wess Safford at (360) 574-3058, extension 126.

Sincerely,

Uri Papish  
Executive Director

UP:wls  
Attachment



**SOUTHWEST CLEAN AIR AGENCY**

**AIR DISCHARGE PERMIT  
15-3160**

**Final Date: October 29, 2015**

Facility Name: Peaceful Paws Cremation and Memorials, Inc.  
Physical Location: 6303 E 18<sup>th</sup> Street  
Vancouver, WA 98666

SWCAA ID: 2263

REVIEWED BY:

  
\_\_\_\_\_  
Paul T. Mairose, Chief Engineer

APPROVED BY:

  
\_\_\_\_\_  
Uri Papish, Executive Director



## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1. Equipment/Activity Identification	1
2. Approval Conditions	1
2.1 Emission Limits	1
2.2 Operating Limits and Requirements	2
2.3 Monitoring and Recordkeeping Requirements	3
2.4 Emission Monitoring and Testing Requirements	3
2.5 Reporting Requirements	3
3. General Provisions	4
Appendix A Emission Monitoring Requirements Crematory #1 and #2	

**1. Equipment/Activity Identification**

<b>ID No.</b>	<b>Generating Equipment/Activity</b>	<b># of Units</b>	<b>Control Measure/Equipment</b>	<b># of Units</b>
1	Crematory #1 (Therm-Tec model S-27-T)	1	Afterburner, controlled combustion	1
2	Crematory #2 (Therm-Tec model S-27-T)	1	Afterburner, controlled combustion	1

**2. Approval Conditions**

The following tables detail the specific requirements of this permit. In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The permit requirement number is identified in the left hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right hand column.

This Permit supersedes Air Discharge Permit 05-2647 in its entirety.

**2.1 Emission Limits**

<b>No.</b>	<b>Emission Limits</b>	<b>Equipment/Activity</b>																						
1.	<p>Combined emissions from crematory operations shall not exceed the following:</p> <table border="0"> <thead> <tr> <th><u>Pollutant</u></th> <th><u>Emission Limit</u></th> </tr> </thead> <tbody> <tr> <td>NO<sub>x</sub></td> <td>2.87 tpy</td> </tr> <tr> <td>CO</td> <td>0.57 tpy</td> </tr> <tr> <td>VOC</td> <td>0.44 tpy</td> </tr> <tr> <td>SO<sub>2</sub></td> <td>0.32 tpy</td> </tr> <tr> <td>PM<sub>10</sub></td> <td>1.19 tpy</td> </tr> <tr> <td>HCL</td> <td>284.0 lb/yr</td> </tr> <tr> <td>Arsenic</td> <td>0.12 lb/yr</td> </tr> <tr> <td>Beryllium</td> <td>0.01 lb/yr</td> </tr> <tr> <td>Cadmium</td> <td>0.04 lb/yr</td> </tr> <tr> <td>Chromium (IV)</td> <td>0.06 lb/yr</td> </tr> </tbody> </table> <p>Annual emissions shall be calculated from actual material throughput and emission factors found in Section 6 of the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	2.87 tpy	CO	0.57 tpy	VOC	0.44 tpy	SO <sub>2</sub>	0.32 tpy	PM <sub>10</sub>	1.19 tpy	HCL	284.0 lb/yr	Arsenic	0.12 lb/yr	Beryllium	0.01 lb/yr	Cadmium	0.04 lb/yr	Chromium (IV)	0.06 lb/yr	1-2
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3.	<p>Visible emissions from the final exhaust stack shall not exceed the following for more than 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with SWCAA Method 9.</p> <p>(a) 5% opacity for the first 15 minutes of the cremation cycle; and</p> <p>(b) 0% opacity for the remainder of the cremation cycle.</p>	1-2																						

**2.2 Operating Limits and Requirements**

No.	Operating Limits and Requirements	Equipment/ Activity
4.	Reasonable precautions shall be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facilitywide
5.	Operations that cause or contribute to a nuisance odor shall use recognized good practice and procedures to reduce these odors to a reasonable minimum.	Facilitywide
6.	Emission units identified in this Permit shall be maintained and operated in total and continuous conformity with the conditions identified in this Permit. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this Permit, including directing the facility to cease operations until corrective action can be completed.	1-2
7.	Each pollution control device shall be operated whenever the processing equipment served by that control device is in operation. Control devices shall be operated and maintained in accordance with the manufacturer's specifications. Furthermore, control devices shall be operated in a manner that minimizes emissions.	1-2
8.	Crematories shall only be fired on natural gas.	1-2
9.	Combined crematory material throughput shall not exceed 296.4 tons per year.	1-2
10.	A temperature gauge capable of continuously monitoring the temperature in the secondary combustion chamber shall be installed and maintained in each crematory.	1-2
11.	The temperature of the secondary combustion chamber in each crematory shall be maintained at or above 1500 °F at all times when in use.	1-2
12.	The secondary combustion chamber in each crematory shall be warmed a minimum of 1600 °F prior to charging the primary combustion chamber.	1-2
13.	Exhaust streams from Crematory #1 shall be discharged vertically into the ambient air at a minimum height of 2.75' above roof level and 24.75' above ground level. Any device that obstructs or prevents vertical discharge (i.e. rain cap) is prohibited.	1
14.	Exhaust streams from Crematory #2 shall be discharged vertically into the ambient air at a minimum height of 4.0' above roof level and 26.67' above ground level. Any device that obstructs or prevents vertical discharge (i.e. rain cap) is prohibited.	2
15.	Whenever emission monitoring results for Crematory #1 or #2 indicate emission concentrations in excess of applicable permit limits, the permittee shall either perform additional monitoring to more accurately quantify CO and NO <sub>x</sub> emissions or initiate corrective action. Additional monitoring or corrective action shall be initiated no later than 3 days after excess emissions are identified. Corrective action includes, but is not limited to, tuning, service by maintenance personnel, limitation of unit load, or other action taken to achieve compliance with permitted limits. Emission monitoring shall be performed subsequent to completion of corrective action to confirm effectiveness.	1-2

**2.3 Monitoring and Recordkeeping Requirements**

No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity								
16.	All records required by this Permit shall be kept for a minimum period of no less than three years and shall be maintained in a form readily available for inspection by SWCAA representatives.	1-2								
17.	With the exception of data logged by a computerized data acquisition system, each record required by this Air Discharge Permit shall include the date and the name of the person making the record entry.	1-2								
18.	Excess emissions and upset conditions shall be recorded for each occurrence.	1-2								
19.	Crematory operations shall be monitored and recorded as follows: <table border="0"> <tr> <td>(a) Hours of operation</td> <td>Recorded weekly per unit</td> </tr> <tr> <td>(b) Weight of material cremated</td> <td>Recorded weekly per unit</td> </tr> <tr> <td>(c) Temperature of secondary combustion chamber</td> <td>Recorded at the beginning and end of each burn cycle</td> </tr> <tr> <td>(d) Maintenance/repair activities</td> <td>Recorded for each occurrence</td> </tr> </table>	(a) Hours of operation	Recorded weekly per unit	(b) Weight of material cremated	Recorded weekly per unit	(c) Temperature of secondary combustion chamber	Recorded at the beginning and end of each burn cycle	(d) Maintenance/repair activities	Recorded for each occurrence	1-2
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(c) Temperature of secondary combustion chamber	Recorded at the beginning and end of each burn cycle									
(d) Maintenance/repair activities	Recorded for each occurrence									

**2.4 Emission Monitoring and Testing Requirements**

No.	Emission Monitoring and Testing Requirements	Equipment/ Activity
20.	Emission monitoring for each crematory shall be conducted no later than June 2016. Subsequent emission monitoring shall be conducted on a continuing 5 year cycle, no later than the end of June in the year in which monitoring is due. All emission monitoring shall be conducted in accordance with protocol found in Appendix A of this Permit.	1-2

**2.5 Reporting Requirements**

No.	Reporting Requirements	Equipment/ Activity
21.	An annual emissions inventory report shall be submitted in accordance with SWCAA 400-105(1). In addition to the emissions information required under SWCAA 400-105(1), each annual report shall include an estimate of annual emission quantities for each TAP compound listed in the Technical Support Document for this Permit.	Facilitywide
22.	Excess emissions shall be reported to SWCAA as follows: <ul style="list-style-type: none"> <li>• As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety;</li> <li>• As soon as possible, but no later than 48 hours after discovery for emissions which the permittee wishes to claim as unavoidable pursuant to SWCAA 400-107(1); and</li> <li>• No later than 30 days after the end of the month of discovery for all other excess emissions.</li> </ul>	1-2
23.	Emission monitoring results shall be reported to SWCAA in writing within 15 days of completion.	1-2

No.	Reporting Requirements	Equipment/ Activity
24.	Initial start-ups of SWCAA approved emission units shall be reported to SWCAA via letter within 10 days	2
25.	<p>The following operational data shall be reported to SWCAA by March 15 for the previous calendar year:</p> <ul style="list-style-type: none"> <li>(a) Hours of operation for each crematory;</li> <li>(b) Weight of material cremated in each crematory; and</li> <li>(c) Air emissions.</li> </ul>	1-2

### 3. General Provisions

No.	General Provisions
A.	For the purpose of ensuring compliance with this Permit, duly authorized representatives of the Southwest Clean Air Agency shall be permitted access to the permittee's premises and the facilities being constructed, owned, operated and/or maintained by the permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this Permit and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms and conditions of this Permit shall be deemed to bind the permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the permittee.
C.	The requirements of this Permit shall survive any transfer of ownership of the source or any portion thereof.
D.	This Permit shall be posted conspicuously at or be readily available near the source.
E.	This Permit shall be invalid if construction/installation has not commenced within eighteen months from date of issuance.
F.	This Permit does not supersede requirements of other Agencies with jurisdiction and further, this Permit does not relieve the permittee of any requirements of any other governmental Agency. In addition to this Permit, the permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this Permit does not relieve the permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70.94, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this Permit is held to be invalid, all unaffected provisions of the Permit shall remain in effect and be enforceable.
I.	No change in this Permit shall be made or be effective except as may be specifically set forth by written order of the Southwest Clean Air Agency upon written application by the permittee for the relief sought.
J.	The Southwest Clean Air Agency may, in accordance with RCW 70.94 impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this Permit, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.

**Air Discharge Permit 15-3160 - Appendix A**  
**Emission Monitoring Requirements**  
**Crematory #1 and #2**

**1. Introduction:**

- a. The purpose of periodically conducting emission monitoring of each crematory is to minimize air emissions and provide a reasonable assurance that each unit is operating properly.
- b. Periodic monitoring may be conducted with an electrochemical cell combustion analyzer, analyzers used for reference method testing, or other analyzers pre-approved by SWCAA.

**2. Monitoring Procedure:**

- a. Monitoring of exhaust gases from each crematory to determine emission concentrations of the constituents listed below shall be conducted no later than June, 2016. Subsequent emission monitoring shall be conducted on a continuing 5 year cycle, no later than the end of June in the year in which emission monitoring is due. An alternate monitoring schedule may be implemented if approved in writing by SWCAA.

Constituents to be Measured

Carbon Monoxide (CO)

Nitrogen Oxides (NO<sub>x</sub>)

Oxygen (O<sub>2</sub>)

Temperature (deg F)

- b. Emission monitoring shall be conducted at the outlet of the final exhaust stack for all constituents. Emission monitoring shall be conducted for the full duration of a single burn cycle. Final emission results shall be averaged for the full cycle.
- c. Production related parameters including process startups, shutdowns, and adjustments shall be recorded during emission testing, and included in the final test report. Production parameters shall include, but are not limited to, the following:
  - Temperature at exhaust stack discharge,
  - Temperature in each combustion chamber, and
  - Description/weight of cremated material.

**3. Minimum Quality Assurance/Quality Control Measures:**

- a. The analyzer(s) response to span gas of a known concentration shall be determined before and after testing. No more than 12 hours may elapse between span gas response checks. The results of the analyzer response shall not be valid if the difference between the pre and post response check results vary by more than 10% of the initial span gas value.
- b. The CO and NO<sub>x</sub> span gas concentrations shall be no less than 50% and no more than 200% of the emission concentration corresponding to the permitted emission limit. A lower concentration span gas may be used if it is more representative of measured concentrations. Ambient air may be used to zero the CO and NO<sub>x</sub> cells/analyzer(s) and span the oxygen cell/analyzer.
- c. Emission data shall not be collected until after analyzer readings have stabilized (less than 5% per minute change in emission concentration). Emission concentrations shall be recorded at least once every minute during the data collection phase.



**Air Discharge Permit 15-3160 - Appendix A**  
**Emission Monitoring Requirements**  
**Crematory #1 and #2**

**4. Reporting:**

- a. All monitoring results shall be recorded at the facility and reported to SWCAA in writing in a format designated by the Agency. Results shall be reported within 15 calendar days of monitoring completion. At a minimum, the following information shall be included in the report:
- (1) Time and date of the performance monitoring;
  - (2) Identification of the personnel involved;
  - (3) Identification of the affected unit;
  - (4) A summary of results (NO<sub>x</sub>, CO, O<sub>2</sub>, Temperature, etc), reported in units consistent with the applicable emission standard or limit;
  - (5) A summary of equipment operating conditions (e.g., firing rate, operating temperatures, etc);
  - (6) Description of material cremated (load weight, animal type, containers, etc.);
  - (7) A description of the evaluation methods or procedures used including all field data, quality assurance/quality control procedures and documentation; and
  - (8) Analyzer response check documentation.
- b. Individual monitoring results shall be reported as read. Final average monitoring results shall be reported corrected to 7% O<sub>2</sub> and adjusted to reflect analyzer response to the zero and span gases (bias/drift adjustment).



## Southwest Clean Air Agency

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### State Environmental Policy Act

#### DETERMINATION OF NONSIGNIFICANCE (DNS) – SWCAA 15-030

##### Description of proposal:

ADP Application CL-2057: Installation of animal crematory. The proposed project will install a new crematory at the site of an existing cremation facility. The facility currently operates an identical crematory unit for the same purpose. Installation of the new unit will not involve any building construction, excavation or change in land use. Environmental impact to media other than air is expected to remain unchanged. Air emissions will be minimized through the use of good combustion controls and an afterburner.

**Proponent:** Peaceful Paws Cremation and Memorials, Inc. (James Hellen, President)

##### Location of proposal, including street address if any:

6303 E 18<sup>th</sup> Street in Vancouver, Washington 98666

**Lead agency:** Southwest Clean Air Agency

The lead agency for this proposal has determined that it does not have a probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

There is no comment period for this DNS.

This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period in the DNS.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by \_\_\_\_\_.

**Responsible official:** Paul T. Mairose, P.E.

**Position/title:** Chief Engineer

**Address:** Southwest Clean Air Agency  
11815 NE 99<sup>th</sup> St, Suite 1294  
Vancouver, WA 98682-2322

**Phone:** (360) 574-3058, ext 130

Signature: Paul T. Mairose

Date: 10/29/15

