



April 9, 2025

Lindsay Fisher
Evergreen Memorial Gardens
1101 NE 112th Ave.
Vancouver, WA 98684

Subject: Final Approval for Replacement Crematory

Dear Lindsay Fisher:

A final determination to issue Air Discharge Permit (ADP) 25-3700 has been completed for ADP application CL-3292 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-3292 was published in the permit section of SWCAA's website on February 26, 2025. 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 25-3700 and the associated Technical Support Document are available for public review in the "Recent Air Discharge Permits" section under the "Air Permits" link on SWCAA's website (<http://www.swcleanair.gov>). Original copies are enclosed for your files.

ADP 25-3700 may be appealed directly to the Pollution Control Hearings Board (PCHB) within thirty (30) days of receipt as provided in Revised Code of Washington (RCW) 43.21B.

If you have any questions or comments, or desire additional information, please contact me or Clint Lamoreaux at (360) 574-3058, extension 131.

Sincerely,

Uri Papish
Executive Director

UP:cl

Enclosure: Technical Support Document and ADP 25-3700





SWCAA
Southwest Clean Air Agency

AIR DISCHARGE PERMIT
25-3700

Issued: April 9, 2025

EVERGREEN MEMORIAL GARDENS
1101 NE 112th Ave., Vancouver, WA 98684

SWCAA ID – 2295



REVIEWED BY:

Clinton H. Lamoreaux

Clinton Lamoreaux, Chief Engineer

APPROVED BY:

Uri Papish

Uri Papish, Executive Director

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Appendix A Performance Monitoring Requirements

1. Equipment/Activity Identification

ID No.	Equipment/Activity	Control Equipment/Measure
1	Crematory (Facultatieve Technologies / FT III)	Controlled combustion, secondary combustion chamber

2. Permit Requirements

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

Air Discharge Permit 07-2722 is superseded in its entirety by this Air Discharge Permit.

Emission Limits

Req. No.	Emission Limits	Equipment/ Activity ID No.														
1.	<p>Emissions from the crematory must not exceed any of the following:</p> <table border="1"> <thead> <tr> <th rowspan="2">Pollutant</th> <th colspan="2">Emission Limit</th> </tr> <tr> <th>Annual</th> <th>Short-term</th> </tr> </thead> <tbody> <tr> <td>NO_x</td> <td>3.41 tpy</td> <td>140 ppmvd</td> </tr> <tr> <td>CO</td> <td>0.59 tpy</td> <td>40 ppmvd</td> </tr> <tr> <td>PM₁₀, total</td> <td>0.97 tpy</td> <td>0.05 gr/dscf</td> </tr> </tbody> </table> <p>The long-term emission limit is the 12-month rolling sum calculated consistent with Section 6 of the Technical Support Document for this ADP. The short-term emission limits are determined as a 1-hour average, corrected to 7% O₂.</p>	Pollutant	Emission Limit		Annual	Short-term	NO _x	3.41 tpy	140 ppmvd	CO	0.59 tpy	40 ppmvd	PM ₁₀ , total	0.97 tpy	0.05 gr/dscf	1
Pollutant	Emission Limit															
	Annual	Short-term														
NO _x	3.41 tpy	140 ppmvd														
CO	0.59 tpy	40 ppmvd														
PM ₁₀ , total	0.97 tpy	0.05 gr/dscf														
2.	<p>Visual emissions from the crematory exhaust stack must not exceed the following for more than 3 minutes in any one hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).</p> <ul style="list-style-type: none"> (a) 5% opacity for the first 15 minutes of the cremation cycle; and (b) 0% opacity at all other times. 	1														

Operating Limits and Requirements

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
3.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
4.	The Permittee must use recognized good practice and procedures to reduce odors to a reasonable minimum.	Facility-wide
5.	Emission units identified in this ADP must be maintained and operated in total and continuous conformity with the conditions identified in this ADP. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this ADP.	1
6.	Each pollution control device must be operated whenever the processing equipment served by that air pollution control device is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications. Furthermore, air pollution control devices must be operated in a manner that minimizes emissions. In this instance, equipment necessary to control combustion such as the flue has oxygen monitor, and combustion air fans are considered part of the pollution control system.	1
7.	The crematory exhaust stack must be discharged vertically above the roof of the building in which it is housed. Any device that obstructs or prevents vertical discharge is prohibited.	1
8.	The crematory exhaust stack must be equipped with accessible sampling ports located in accordance with EPA Method 1. Each test port must have a nominal diameter of three inches or greater unless an alternative is approved by SWCAA.	1
9.	The secondary combustion chamber must achieve a temperature of at least 1,600 °F prior to loading the crematory unless compliance with the relevant permit limitations has been demonstrated to SWCAA's satisfaction at a lower temperature. The crematory must include an interlock system to prevent inadvertent violation of this requirement.	1
10.	The temperature of the primary and secondary combustion chambers must be monitored and recorded continuously. For the purpose of this requirement, continuous means completing a minimum of one cycle of operation (sampling, analyzing, and data recordkeeping) for each successive 15-minute period.	1
11.	The secondary chamber must maintain a temperature of at least 1,600 °F during the entire cremation cycle unless compliance with the relevant permit limitations has been demonstrated to SWCAA's satisfaction at a lower temperature.	1
12.	All refractory material used in the crematory, including for repairs, must not contain chromium except as a trace impurity or contaminant.	1

Monitoring and Recordkeeping Requirements

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
13.	<p>The following information must be collected, recorded at the intervals specified below, and readily available on-site for inspection:</p> <ul style="list-style-type: none"> (a) The number of hours the crematory is operated must be recorded at least once for each week; (b) The total number of bodies cremated must be recorded at least once for each week; (c) The total weight of materials (bodies and containers) cremated must be recorded at least once for each week; (d) The operating temperature of the secondary chamber must be continuously monitored and recorded. For the purpose of this requirement, continuous means completing a minimum of one cycle of operation (sampling, analyzing, and data recordkeeping) for each successive 15-minute period; (e) The total amount of natural gas consumed must be recorded at least once for each month. Billing records may be used for this purpose, and facility-wide fuel consumption may be assumed to be representative of crematory fuel consumption; (f) Upset conditions and excess emissions must be recorded for each occurrence; (g) Maintenance activities that may affect emissions from the crematory must be logged for each occurrence; and (h) All air quality related complaints, including odor complaints, received by the permittee and the results of any subsequent investigation or corrective action must be recorded for each occurrence. 	Facility-wide
14.	With the exception of data logged electronically, each record required by this Air Discharge Permit must include the date and the name of the person making the record entry.	Facility-wide
15.	All records required by this Air Discharge Permit must be available on site for a minimum period of no less than three years and must be available for inspection by SWCAA representatives.	Facility-wide

Emission Monitoring and Testing Requirements

Req. No.	Emission Monitoring and Testing Requirements	Equipment/ Activity ID No.
16.	<p>At least once per calendar month, a brief qualitative observation for the purpose of identifying the presence of visible emissions from the crematory must be performed during daylight hours while the unit is under normal operation (i.e., not in startup, shut down, or upset).</p> <p>(a) If no visible emissions are observed, a record must be made, and no further action is necessary;</p> <p>(b) If visible emissions are observed, then the Permittee must verify that the unit is meeting the applicable visible emissions limit. If the limit is being met, a record must be made, and no further action is necessary; and</p> <p>(c) If the unit exceeds the applicable visual emissions limit, then the Permittee must report the excess emissions, make a record, and take corrective actions until such time as compliance with the limit can be demonstrated.</p>	1
17.	Performance monitoring of the crematory must be conducted initially and at least once every 60 calendar months as described in Appendix A of this ADP.	1

Reporting Requirements

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
18.	All air quality related complaints, including odor complaints, received by the Permittee must be reported to SWCAA within three days of receipt.	Facility-wide
19.	<p>Excess emissions must be reported to SWCAA as follows:</p> <p>(a) As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety;</p> <p>(b) 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; and</p> <p>(c) No later than 30 days after the end of the month of discovery for all other excess emissions.</p>	Facility-wide
20.	Deviations from permit conditions must be reported no later than 30 days after the end of the month during which the deviation is discovered.	Facility-wide
21.	The results of all performance monitoring conducted in accordance with Appendix A must be reported to SWCAA within 15 days of test completion.	Facility-wide
22.	<p>The following emission-related information must be reported to SWCAA by March 15th for the previous calendar year:</p> <p>(a) The total number of bodies cremated;</p> <p>(b) The total weight of materials (bodies and containers) cremated; and</p> <p>(c) Air emissions of criteria air pollutants, volatile organic compounds (VOCs), toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).</p>	Facility-wide

3. General Provisions

Req. No.	General Provisions
A.	For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency must 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 ADP and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms, and conditions of this ADP 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 ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalidated, in whole or in part, if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more without prior SWCAA approval, or if construction is not completed within a reasonable time.
F.	This ADP does not supersede requirements of other agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, 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 ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will 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 70A.15, impose such conditions as are reasonably necessary to ensure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.
K.	For the purposes of establishing if a condition of this ADP has been violated or is being violated, nothing in this ADP precludes the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

Appendix A

Performance Monitoring Requirements

1. Introduction:

- a. The purpose of periodically monitoring the crematory exhaust is to minimize emissions and provide a reasonable assurance that the crematory 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 Requirements:

- a. Monitoring to determine emission concentrations of the following constituents must be conducted within 60 days of initial operation. Subsequent performance monitoring must be conducted no later than the end of the month in which initial testing was due every five (5) years thereafter.

Constituents to be Measured

Carbon Monoxide (CO)

Nitrogen Oxides (NO_x)

Oxygen (O₂)

- b. To ensure that monitoring results are representative, at least 5 minutes of monitoring data must be collected beginning at the following times:

15 minutes into cremation cycle

45 minutes into cremation cycle (30 minutes after 1st measurement)

90 minutes into cremation cycle (45 minutes after 2nd measurement)

- c. Alternative monitoring methodologies must be pre-approved by SWCAA.

3. Minimum Quality Assurance/Quality Control Measures:

- a. The analyzer(s) response to span gas of a known concentration must be determined before and after testing. No more than 12 hours may elapse between span gas response checks. The results of the analyzer response check are not valid if the pre and post response check results vary by more than 10% of the known span gas value.
- b. The CO and NO_x span gas concentrations must 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_x cells/analyzer(s) and span the oxygen cell/analyzer.

Appendix A

Performance Monitoring Requirements

3. Minimum Quality Assurance/Quality Control Measures (continued):

- c. Each sampling period must consist of at least 1 test consisting of at least 5 minutes of data collection following a "ramp-up phase." The ramp-up phase ends when analyzer readings have stabilized (less than 5%/minute change in emission concentration). Emission concentrations must be recorded at least once every 30 seconds during testing. All test data collected following the ramp-up phase(s) must be reported to SWCAA.

If the results from any monitoring event indicate that emission concentrations may exceed the limits identified in this Permit, the permittee must either perform additional monitoring throughout the crematory cycle to more accurately quantify CO and NO_x emissions or initiate corrective action. Additional monitoring or corrective action must be initiated as soon as practical but no later than three days after the potential exceedance is identified. Corrective action includes tuning, maintenance by service personnel, modification of operating setpoints, or other action taken to maintain compliance with permitted limits. Monitoring of emissions must be conducted within three days following completion of any corrective action to confirm that the corrective action has been effective. Initiation of corrective action does not shield the permittee from enforcement actions by SWCAA.

4. Reporting:

- a. All monitoring results must be recorded at the facility and reported to SWCAA. The following information must be included in the report:
 - (1) Time and date of the emissions evaluation;
 - (2) Identification of the personnel involved;
 - (3) A summary of results, reported in units consistent with the applicable emission standard(s) or limit(s);
 - (4) A summary of equipment operating conditions including cremation weight and secondary combustion chamber operating temperature;
 - (5) A description of the evaluation methods or procedures used including all field data, quality assurance/quality control procedures and documentation; and
 - (6) Analyzer response check documentation.
- b. Performance monitoring test results shall be corrected to 7% O₂.

5. Changes to Testing Requirements:

The source test must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or the testing schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.