

## GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality  
Air Quality Division  
811 SW Sixth Avenue  
Portland, OR 97204-1390  
Telephone: (503) 229-5359

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**This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on October 17, 2007 for the following source category:**

Incinerators, human and/or animal crematories. SIC 4953

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## 1.0 PERMIT ASSIGNMENT

- 1.1 Qualifications All of the following conditions must be met 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 The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of OAR 340-216-0060 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air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. 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 a Standard Permit or additional General ACDPs, if applicable.

## 2.0 EMISSION STANDARDS AND LIMITS

- 2.1 Visible Emissions No visible emissions may be present except for one 6 minute period per hour of not more than 20% opacity as measured by EPA Method 9.
- 2.2 Particulate Matter Emissions Particulate matter must not exceed 0.080 grains per dry standard cubic foot of exhaust gases corrected to 7% O<sub>2</sub> at standard conditions.

- 2.3 Fugitive Emissions The permittee must take reasonable precautions for preventing fugitive dust emissions from becoming a nuisance, such as but not limited to:
- a. Treating vehicular traffic areas of the plant site under the control of the permittee.
  - b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.
  - c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.
- 2.4 Particulate Matter Fallout The permittee must not cause or permit the emission of any 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. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.
- 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 Department 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 and materials normally used in cremations in the incinerator(s). No other waste, including infectious waste as defined in OAR 340-230-0030, may be incinerated.
- 3.2 Temperature and Residence Time Requirements The permittee must comply with the following standards, as applicable:
- a. For incinerators installed prior to March 13, 1993, the temperature at the final chamber must be equal to or greater than 1600°F with a residence time of at least 0.5 seconds. The temperature in the final chamber must be equal to or greater than 1200°F prior to igniting the primary burner.
  - b. For incinerators installed on or after March 13, 1993, the temperature at the final chamber must be equal to or

greater than 1800°F with a residence time of at least 0.5 seconds. The temperature in the final chamber must be equal to or greater than 1400°F prior to igniting the primary burner.

- 3.3 Operator Training The incinerator(s) shall be operated at all times under the direction of individuals who have received training necessary for proper operation. The following shall be available on-site at all times form Department inspection:
- a. A description of a Department-approved training program. New facilities must submit a description of the operator training program to the Department 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.
- 3.4 Fugitive Emissions Control Plan While operating in the Medford-Ashland AQMA, the permittee must prepare and implement site-specific plans for the control of fugitive emissions in accordance with OAR 340-240-0180. While operating in the Lakeview Urban Growth Area (UGA), the permittee must prepare and implement site-specific plans for the control of fugitive emissions in accordance with OAR 340-240-0410.
- 3.5 O&M plan While operating in the Medford-Ashland AQMA, the permittee must prepare and implement an operation and maintenance (O&M) plan in accordance with OAR 340-240-0190. While operating in the Lakeview UGA, the permittee must prepare and implement an O&M plan in accordance with OAR 340-240-0420.

## 4.0 PLANT SITE EMISSION LIMITS

- 4.1 Plant Site Emission Limits (PSEL) Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM <sub>10</sub>	14	tons per year
SO <sub>2</sub>	39	tons per year
NO <sub>x</sub>	39	tons per year
CO	99	tons per year
VOC	39	tons per year

4.2 PM<sub>10</sub> PSEL for Medford-Ashland AQMA

For sources operating in the Medford-Ashland AQMA, plant site emissions of PM<sub>10</sub> must not exceed the following:

Pollutant	Limit	Units
PM <sub>10</sub>	4.5	tons per year
	49	pounds per day

4.3 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;
- b. If the source violates the requirements of Conditions 2.1 or 2.2; or
- c. At the Department's request.

5.2 Compliance Demonstration Procedures

As proof of compliance, the permittee may submit to the Department:

- a. A source test conducted for particulate matter emissions in accordance with OAR 340-212-0120 through 340-212-0140; or,
- b. The results of testing performed on a crematory incinerator that the Department agrees is comparable to the incinerator in question.

5.3 Temperature Monitoring Requirement

All crematory incinerators must operate and maintain continuous monitoring for final combustion chamber exit temperature. The monitoring device must be installed and operated in accordance with the manufacturer's instructions, and must be located in an area of the secondary combustion chamber that will allow evaluation of compliance with temperature requirements in Condition 3.2.

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);
- EF = pollutant emission factor (see Condition 5.5);
- P = process production (number of hours operated or number of batches incinerated for PM/PM<sub>10</sub>; million cubic feet of natural gas combusted for SO<sub>2</sub>, CO, NO<sub>x</sub> 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 by the Department. The permittee may request or the Department may require using 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 the Department.

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
Crematory	PM/ PM <sub>10</sub>	source test result	lbs/hr, lbs/ton of material, or lbs/batch
	SO <sub>2</sub>	1.7	lb/million cubic feet of natural gas combusted
	NO <sub>x</sub>	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

## 6.0 RECORDKEEPING REQUIREMENTS

6.1 Operation and Maintenance The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

- 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. The amount of natural gas combusted in the incinerator(s) on a 12-consecutive calendar month basis.
  - c. The number of hours the incinerator(s) are operated **or** the tons of material incinerated **or** the number of batches incinerated on a 12-consecutive calendar month basis, consistent with the emission factor.
- 6.2 Excess Emissions The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60 minute period.
- 6.3 Complaints 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.
- 6.4 Retention of Records Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to the Department upon request.

## 7.0 REPORTING REQUIREMENTS

- 7.1 Excess Emissions The permittee must notify the Department 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 8.3.
  - b. If the excess emissions occur during non-business hours, the permittee must notify the Department 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 the Department.

- 7.2 Annual Report The permittee must submit to the Department 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 (report the parameter(s) used in the emission factor):
    - i. hours of operation; or
    - ii. tons of material incinerated; or
    - iii. number of batches; and
    - iv. cubic feet of natural gas burned.
  - b. Records of all planned and unplanned 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 the Department in writing of the date a new facility is started up. The notification must be submitted no later than seven (7) days after startup.
- 7.4 Notice of Change of Ownership or Company Name The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:
- 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 the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 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 the Permit Coordinator for the region where the source is located as identified in Condition 8.2.

## 8.0 ADMINISTRATIVE REQUIREMENTS

8.1 Reassignment to the General ACDP      A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

- a. If the Department 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 until the Department takes final action on the Simple or Standard ACDP application.
- c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

8.2 Permit Coordinator Addresses      All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582

<b>Counties</b>	<b>Permit Coordinator Address and Telephone</b>
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 475 NE Bellevue Dr., Suite 110 Bend, OR 97701 Telephone: (541) 633-2021

- 8.3 Department Contacts Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at [www.deq.state.or.us](http://www.deq.state.or.us). All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

<b>Counties</b>	<b>Office Address and Telephone</b>
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 340 N Front Street Coos Bay, OR 97420-2325 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 Stewart Ave, Suite 201 Medford, OR 97501 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 475 NE Bellevue Dr., Suite 110 Bend, OR 97701 Telephone: (541) 388-6146

Counties	Office Address and Telephone
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

## 9.0 FEES

- 9.1 Annual Compliance Fee The Annual Compliance Determination Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Class One General ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
- 9.2 Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0090, 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:  
 Department of Environmental Quality  
 Business Office  
 811 SW Sixth Avenue  
 Portland, Oregon 97204-1390

## 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 the Department.
- 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 Department Access The permittee must allow the Department'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 OAR 340 Division 264.
- 10.7 Asbestos The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit 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 OAR 340-216-0060(3) and (4).

## 11.0 ABBREVIATIONS, ACRONYMS, DEFINITIONS

ACDP	Air Contaminant Discharge Permit	NSR	New Source Review
ASTM	American Society for Testing and Materials	O <sub>2</sub>	oxygen
AQMA	Air Quality Maintenance Area	OAR	Oregon Administrative Rules
bbl	barrel (42 gal)	ORS	Oregon Revised Statutes
calendar year	The 12-month period beginning January 1st and ending December 31st	O&M	operation and maintenance
CFR	Code of Federal Regulations	Pb	lead
CO	carbon monoxide	PCD	pollution control device
date	mm/dd/yy	PM	particulate matter
DEQ	Oregon Department of Environmental Quality	PM <sub>10</sub>	particulate matter less than 10 microns in size
dscf	dry standard cubic foot	ppm	part per million
EPA	US Environmental Protection Agency	ppmv	part per million by volume
FCAA	Federal Clean Air Act	PSD	Prevention of Significant Deterioration
gal	gallon(s)	PSEL	Plant Site Emission Limit
gr/dscf	grains per dry standard cubic foot	PTE	Potential to Emit
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	RACT	Reasonably Available Control Technology
ID	identification number	scf	standard cubic foot
I&M	inspection and maintenance	SER	Significant Emission Rate
lb	pound(s)	SERP	Source Emission Reduction Plan
MMBtu	million British thermal units	SIC	Standard Industrial Code
NA	not applicable	SIP	State Implementation Plan
NESHAP	National Emissions Standards for Hazardous Air Pollutants	SO <sub>2</sub>	sulfur dioxide
NO <sub>x</sub>	nitrogen oxides	Special Control Area	as defined in OAR 340-204-0070
NSPS	New Source Performance Standard	VE	visible emissions
		VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months

msf: 10/17/07

AQGP-012, Crematories