

Jasmine Forbes

From: Suna Yi Sariscak <sun.sariscak@maryland.gov>
Sent: Thursday, August 20, 2020 5:09 PM
To: Jasmine Forbes
Cc: Marcie Gurley -MDE-; MDE WEBMASTER -MDE-; Mary Jane Rutkowski -MDE-
Subject: Air Quality Requirements for Crematories

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Hello Ms. Forbes,

Your message to the MDE Webmaster was forwarded to me for response. Crematories are considered air pollution sources, because they emit both federally regulated criteria pollutants such as oxides of nitrogen (NO_x), volatile organic compounds (VOC), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter, and hazardous air pollutants (HAP), and state regulated toxic air pollutants. Crematories require an air quality permit to construct prior to construction, and after an initial temporary operating period, an air quality State Permit to Operate (that must be renewed every 5 years).

From a federally regulated criteria pollutant standpoint, crematories emit a minor amount of emissions. Here is a summary of criteria pollutant emissions from an average crematory with one retort (the federal major source thresholds applicable in Montgomery County for each pollutant are listed in parentheses next to each pollutant):

NO_x: 4.5 tons per year (25 tons per year)
VOC: 1.6 tons per year (25 tons per year)
SO₂: 1.0 tons per year (250 tons per year)
CO: 3.8 tons per year (250 tons per year)
Particulate Matter: 0.8 tons per year (250 tons per year)
Total HAP: Less than 1.0 tons per year (25 tons per year)
Single Most Emitted HAP: Less than 0.5 tons per year (10 tons per year)

So, as far as federally regulated criteria pollutants are concerned, crematories are not air pollution major sources, and do not require any federal permit approvals.

From a state regulatory standpoint, crematories must not cause visible emissions, must emit less than 0.10 grains of particulate matter per standard cubic feet of dry exhaust gases, must not create a nuisance or odor, and must meet Maryland's stringent toxic air pollutant emissions requirements. A well operated and maintained crematory will not cause any visible emissions, will meet the particulate matter emissions standard, and will not cause a nuisance or odor.

As for emissions of Maryland toxic air pollutants, the permit applicant must first quantify the amount of emissions from toxic air pollutants. Then, the applicant must demonstrate that the concentration of each toxic air pollutant's emissions at the property line and beyond are less than the threshold determined in State regulation to be protective of public health. These levels vary depending on the toxicity of each pollutant.

Many factors affect the amount of toxic air pollutant emissions that a crematory would be allowed to emit and still demonstrate compliance. These factors include, but are not limited to, the crematory location on the property, the height of the stack, and the distance of the stack to the property line. A crematory may be able to

install several retorts or process more if they are located on a large property. Some locations may only be able to meet Maryland's requirements with only one retort with limits on the number of cremations each day due to the proximity to other buildings, the property line, etc. These limits are very specific to the facility and location. Until a permit application is received and reviewed, it is difficult to tell whether a crematory will be in compliance with all federal and state air quality regulations so that a permit could be issued. A permit would not be issued if the applicant could not demonstrate compliance with all applicable federal and state air quality requirements.

At this point, we do not have an air quality permit application in-house for a proposed crematory in Montgomery County. The application must include evidence of zoning approval before we will accept any permit application for processing.

If you have any additional questions, please let me know. Thank you.



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Because of the COVID-19 virus and the need for safety precautions, many state employees are working remotely.

----- Forwarded message -----

From: **Jasmine Forbes** <Jasmine.Forbes@gaithersburgmd.gov>
Date: Thu, Aug 20, 2020 at 1:59 PM
Subject: Crematorium Regulations
To: mde.webmaster@maryland.gov <mde.webmaster@maryland.gov>

Good Afternoon,

I am a planner for the City of Gaithersburg and currently reviewing an application for a funeral home that wants to expand their services to include a crematorium. The funeral home plans to only install one retort and is adjacent to some residential homes. During the public hearing meeting, the public had concerns about the amount of emissions that is generated from a crematorium. I know that MDE issues and regulates the permit. I want to know what emissions are MDE reviewing for a crematorium and what is the acceptable amount of the emissions that can be released from the crematorium to not impact the people that lives near a crematorium. Thank you.

Jasmine Forbes, Planner I

Planning and Code Administration



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