

Jasmine Forbes

From: Jasmine Forbes
Sent: Friday, August 28, 2020 9:46 AM
To: 'Paul Zelinski'
Subject: RE: Cremation Issues
Attachments: Exhibit #136- Email Correspondence from Suna Yi Sariscak MDE 8-20-2020.pdf

Good Morning,

Thank you for your correspondence related to Concept Site Plan application SP-8415-2020. Your correspondence will be included in the Council's record for their consideration. The permit for crematoriums are issued and regulated by the Maryland Department of the Environment (MDE). In the attachment is an email ,which is part of the application record, explaining what MDE reviews.

Regards,
Jasmine Forbes



Jasmine Forbes, Planner I
Planning and Code Administration

City of Gaithersburg | 31 South Summit Avenue | Gaithersburg, MD, 20877
Direct: 240-805-1069 | Main: 301-258-6330 | www.gaithersburgmd.gov
Jasmine.Forbes@gaithersburgmd.gov

From: Paul Zelinski <mariapat@hotmail.com>
Sent: Friday, August 28, 2020 6:23 AM
To: Planning External Mailing <Planning@gaithersburgmd.gov>
Subject: Cremation Issues

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Is this true?

The process of corpse cremation generates numerous harmful air pollutants, including particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs), and heavy metals. These pollutants could have severe effects on the surrounding environment and human health. Currently, the awareness of the emission levels of harmful air pollutants from cremators and their emission characteristics is insufficient. In this study, we obtained the emission characteristics of flue gas from cremators in Beijing and determined the localized emission factors and emission levels of harmful air pollutants based on actual monitoring data from nine typical cremators. The results show that the emissions of air pollutants from the

cremators that directly discharge flue gas exceed the emission standards of China and Beijing. The installation of a flue gas post-treatment system could effectively reduce gaseous pollutants and the emission levels of PM. After being equipped with a flue gas post-treatment system, the emission concentrations of PM₁₀, PM_{2.5}, CO, SO₂ and VOCs from the cremators are reduced by 97.6, 99.2, 19.6, 85.2 and 70.7%, respectively. Moreover, the emission factors of TSP, PM₁₀, PM_{2.5}, CO, SO₂ and VOCs are also reduced to 12.5, 9.3, 3.0, 164.1, 8.8 and 19.8 g/body. Although the emission concentration of VOCs from the cremators is not high, they are one of major sources of “odor” in the crematories and demand more attention. Benzene, a chemical that can seriously harm human health, constitutes the largest proportion (~50%) of the chemical components of VOCs in the flue gas from the cremators.

Jasmine Forbes

From: Jasmine Forbes
Sent: Friday, August 28, 2020 2:35 PM
To: 'jim fenn'
Subject: RE: Effects of cremation on the environment

Good Afternoon,

Thank you for your correspondence related to Concept Site Plan application SP-8415-2020. Your correspondence will be included in the Council's record for their consideration. Please note that the Council's record on this application will close on September 16th. For information about the application, please visit the project page:

<https://www.gaithersburgmd.gov/government/projects-in-the-city/10-and-14-east-deer-park-drive> .

Regards,
Jasmine Forbes



Jasmine Forbes, Planner I
Planning and Code Administration

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Jasmine.Forbes@gaithersburgmd.gov

From: jim fenn <jfenn13@yahoo.com>
Sent: Friday, August 28, 2020 10:25 AM
To: Michael Sesma <michael.sesma@gaithersburgmd.gov>; Ryan Spiegel <ryan.spiegel@gaithersburgmd.gov>; Robert Wu <robert.wu@gaithersburgmd.gov>; Neil Harris <Neil.Harris@gaithersburgmd.gov>; Jasmine Forbes <Jasmine.Forbes@gaithersburgmd.gov>; Jud Ashman <Jud.Ashman@gaithersburgmd.gov>; Planning External Mailing <Planning@gaithersburgmd.gov>; Laurie-Anne Sayles <Laurie-Anne.Sayles@gaithersburgmd.gov>
Subject: Effects of cremation on the environment

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Cremation has become a more popular alternative to burial. However, cremation is not without an impact on the environment and as a result 'Green Burials' are now looked into as a further alternative.

Crematorium furnaces combust at very high temperatures, 1590-1797 degrees Fahrenheit or 870 - 980 degrees Celsius, and it takes at least an hour to incinerate the body. The burners can range in power from 150 kW to 800 kW. Most furnaces are run by natural gas. The air supply is controlled. A 68 kg body which contains 65% water will require 100 MJ of thermal energy before any combustion will take place. This is equivalent to 3 cubic metres of natural gas or 3 litres of fuel oil. Additional energy

is necessary to preheat the furnace. The furnace is lined with refractory ceramic bricks and to produce them requires lots of energy and materials.

Calcified compounds within cremains can contain metals such as lead, boron, cadmium, chromium, cobalt, copper, tin, lithium, magnesium, manganese, nickel and strontium. Metals such as arsenic and selenium, though present in a live human body, are volatile and decompose quickly upon burning. Levels of toxic metals in cremains are not regulated although all non-combustible materials must be removed from the corpse. Pacemakers must be removed as they explode and will damage the furnace. Dental metal fragments must be removed. The body is burned within the coffin or a cardboard box. Any bone fragments left after they cool are ground in a separate process and added to the ash. Fumes produced are computer controlled. The flue gases are vented to the atmosphere through a refractory-lined flue. The gases are at a very high temperature and are cooled. However, gaseous emissions are by far the greatest source of cremation pollution.

In addition to harmless compounds such as water vapor, emissions include carbon dioxide, carbon monoxide, nitrogen oxide, sulphur dioxide, hydrogen chloride gas, hydrogen fluoride, mercury vapour. Organic compounds such as benzenes, furans, acetone are also emitted and these react with the hydrogen chloride and hydrogen fluoride under combustion conditions to form polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) both of which are carcinogens. A study by the Cremation Association of North America has found that filtering crematorium fumes has little effect on the toxins released. However, when compared to yearly toxin release world wide, crematoriums contribute only a very small fraction of harmful compounds or greenhouse gases.

Excerpted from faculty.virginia.edu/metals/cases/huffman1.html

The process of corpse cremation generates numerous harmful air pollutants, including particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs), and heavy metals. These pollutants could have severe effects on the surrounding environment and human health. Currently, the awareness of the emission levels of harmful air pollutants from cremators and their emission characteristics is insufficient. In this study, we obtained the emission characteristics of flue gas from cremators in Beijing and determined the localized emission factors and emission levels of harmful air pollutants based on actual monitoring data from nine typical cremators. The results show that the emissions of air pollutants from the cremators that directly discharge flue gas exceed the emission standards of China and Beijing. The installation of a flue gas post-treatment system could effectively reduce gaseous pollutants and the emission levels of PM. After being equipped with a flue gas post-treatment system, the emission concentrations of PM₁₀, PM_{2.5}, CO, SO₂ and VOCs from the cremators are reduced by 97.6, 99.2, 19.6, 85.2 and 70.7%, respectively. Moreover, the emission factors of TSP, PM₁₀, PM_{2.5}, CO, SO₂ and VOCs are also reduced to 12.5, 9.3, 3.0, 164.1, 8.8 and 19.8 g/body. Although the emission concentration of VOCs from the cremators is not high, they are one of major sources of "odor" in the

crematories and demand more attention. Benzene, a chemical that can seriously harm human health, constitutes the largest proportion (~50%) of the chemical components of VOCs in the flue gas from the cremators.

Source:

[PLoS One](#)



. 2018; 13(5): e0194226.
Published online 2018 May 2.

Gaseous emissions are by far the greatest source of cremation pollution and thus far the only crematorium waste that is regulated. In addition to harmless compounds such as water vapor (H₂O), emissions include the greenhouse gas carbon dioxide (CO₂); pollutants and carcinogens carbon monoxide (CO), nitrogen oxide (NO₂), and sulfur oxide (SO₂); volatile acids such as hydrogen chloride (HCl) and hydrogen fluoride (HF), both of which form during vaporization of plastics or insulation; and mercury (often from dental fillings). Organic compounds such as benzenes, furans and acetone are also emitted and react with HCl and HF under combustion conditions to form polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), both of which are carcinogens. Hg, PCDDs, and PCDFs are of special concern because they are susceptible to bioaccumulation.

With human's impact on earth becoming more of a concern, even with the disposal of our remains must be taken into account. Environmental agencies agree that burial is not the best method because of the space taken up, worry over toxic leakage from the casket (deteriorating plastics from insulation and lining, formaldehyde and metals from the body), and the environmental impact of casket manufacture. Cremation is often touted as the environmentally friendly alternative to burial, but even it uses coal or natural gas as heating fuel and emits toxic substances.

Jasmine Forbes

From: Jasmine Forbes
Sent: Friday, August 28, 2020 2:37 PM
To: 'jim fenn'
Subject: RE: How SAFE are Crematoriums? Scientific Evidence, Also evidence of effect of Crematoria on Property Values

Good Afternoon,

Thank you for your correspondence related to Concept Site Plan application SP-8415-2020. Your correspondence will be included in the Council's record for their consideration. Please note that the Council's record on this application will close on September 16th. For information about the application, please visit the project page: <https://www.gaithersburgmd.gov/government/projects-in-the-city/10-and-14-east-deer-park-drive>.

Regards,
Jasmine Forbes



Jasmine Forbes, Planner I
Planning and Code Administration

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Jasmine.Forbes@gaithersburgmd.gov

From: jim fenn <jfenn13@yahoo.com>
Sent: Friday, August 28, 2020 10:59 AM
To: Michael Sesma <michael.sesma@gaithersburgmd.gov>; Ryan Spiegel <ryan.spiegel@gaithersburgmd.gov>; Robert Wu <robert.wu@gaithersburgmd.gov>; Neil Harris <Neil.Harris@gaithersburgmd.gov>; Robert Wu <robert.wu@gaithersburgmd.gov>; Neil Harris <Neil.Harris@gaithersburgmd.gov>; Jasmine Forbes <Jasmine.Forbes@gaithersburgmd.gov>; Jud Ashman <Jud.Ashman@gaithersburgmd.gov>; Planning External Mailing <Planning@gaithersburgmd.gov>; Laurie-Anne Sayles <Laurie-Anne.Sayles@gaithersburgmd.gov>
Subject: How SAFE are Crematoriums? Scientific Evidence, Also evidence of effect of Crematoria on Property Values

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12. [PennStateStudy-Crematory-property-values\(2010\)](#)

PENN State/University of Wyoming Study: "The impact of crematory operations on adjacent residential values"

- a. Study of residential house sales in Rawlins, Wyoming, was conducted to estimate the impact of an environmental shock from a new point source upon adjacent residential property values.
- b. Data spans 27 months of house sales: 7 months before, and 20 months after the startup of crematory operations. Data based on actual home

sales.

- c. Studied both direction and wind patterns, determined downwind to be an important factor in study as it applies to atmospheric pollutants.
- d. Rawlins City Planner issued a building permit to the subject mortuary to install a 40 ton, two-chamber, natural gas-fired Millennium II crematory in a vehicle storage garage adjacent to the mortuary building.
- e. Controversy remains as to whether this Planner was authorized to issue a permit for this expanded, nonconforming use of an existing funeral home facility in an area zoned for residences.
- f. Citizens began complaining to City and State authorities about the crematory with its glaring, all-night illumination, noise and - most notable - noxious odor, which permeated residents' houses, making them feel ill and 'devaluing' (Morton, 2005) their properties.
- g. Wyoming Department of Environmental Quality ordered an emissions test and determined that the crematory had emissions comparable to its state permit request with several notable exceptions: annual ambient cadmium and dioxin/furan concentrations at the crematory property boundary exceeded National (and Wyoming) Air Quality Standards, by approximately 205% and 2200%, respectively (URS, 2006). Hydrogen chloride concentrations at this boundary exceeded the one-hour US Environmental Protection Agency's 'remediation goal' by 797%, with sulfur oxide, nitrogen oxide, chromium, and mercury concentrations being from 43 to 74% of the Agency's National Standard or remediation goal. Cadmium, chromium, dioxin/furans, hydrogen chloride and mercury are toxins for which any positive concentration may have human health impacts. (Wexler, 2005).

For more information about the emissions from the crematory in Rawlins WY, which was the subject of this study, See Also: [Rostad Mortuary Crematory Air Quality Impact Analysis](#)

Environmental Science Technology "Characterizing the Emissions of Polychlorinated Dibenzop-dioxins and Dibenzofurans from Crematories and Their Impacts to the Surrounding Environment"

- a. Two crematories in Taiwan were tested, one with no emissions controls, the other with a bag filter.
- b. The one with a bag filter removed 55.1% of the dioxins/furans, but both crematories still emitted significant amount of both compounds.
- c. Determined that crematories with a low stack and no pollution controls are more of a threat to the community, but even after filtration, dioxin and furan levels are still at concentration levels well above "safe" levels
- d. US EPA has reported that there appears to be no "safe" level for dioxin exposure, and the levels of dioxin and dioxin-like chemicals found in the general U.S. population were "at or near levels associated with adverse health effects:
- e. Stacks on tested crematories were 5 m (16.4') and 6 m (19.7')

Ban Mercury Working group Mercury Exposure: The World's Toxic Time Bomb

- a. Human health is compromised by significantly smaller concentrations than ever imagined.
- b. WHO concluded that "a safe level of mercury exposure ... has never been established."
- c. Less than 1/50th of a teaspoon mercury per 20-acre lake surface is enough to make fish in it unsafe for human consumption.
- d. Methylmercury crosses blood-brain barrier
- e. Mercury persists in the environment and can be tracked indoors on clothes and shoes, re-exposing residents in enclosed buildings continually.

McCracken Poston, A scientific explanation for the events at Tri-State Crematory

- a. Theory of an external, environmental cause claimed not only the literal sanity and judgment of Ray-Brent Marsch, but also the health and ultimately the life itself of his father, Tommy Ray Marsch.
- b. Suspect element is mercury
- c. Ray-Brent Marsch cremated the first two-thirds of the bodies sent to him, the crematory was in somewhat of a functioning order, and there was obvious heavy particulate matter on the interior of the small crematory building due to inadequate ventilation and a breached stovepipe from the retort to the exterior.
- d. Ray-Brent complained to his wife of headaches and seemingly minor body aches, and suffered from chronic insomnia. (symptoms of mercury toxicity)
- e. Hair sample was taken two years after crematory discoveries and exposure to suspected mercury vapors had ended.
 - i. Hair sampled showed classic signature of mercury poisoning
 - ii. Alarming high levels of heavy metals
 - iii. Mineral transport impairment
 - iv. Dr Boyd Haley, University of Kentucky Scientist has signed affidavit supporting Poston's theory.
- f. Failure was on the part of the governmental regulatory process in US and in the State of

Georgia.

- g. Little or no guidelines exist regarding proper ventilation or placement of crematories.
- h. Case is over, no appeals for Marsch, paper written as an explanation for the loved ones & the curious.

Jasmine Forbes

From: Jasmine Forbes
Sent: Friday, August 28, 2020 2:42 PM
To: 'outlook_26E3032D07A3C172@outlook.com'
Subject: RE: "NO" to the proposed DeVol application SP-8415-2020

Good Afternoon,

Thank you for your correspondence related to Concept Site Plan application SP-8415-2020. Your correspondence will be included in the Council's record for their consideration. Please note that the Council's record on this application will close on September 16th. For information about the application, please visit the project page:

<https://www.gaithersburgmd.gov/government/projects-in-the-city/10-and-14-east-deer-park-drive> .

Regards,
Jasmine Forbes



Jasmine Forbes, Planner I
Planning and Code Administration

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Direct: 240-805-1069 | Main: 301-258-6330 | www.gaithersburgmd.gov
Jasmine.Forbes@gaithersburgmd.gov

From: outlook_26E3032D07A3C172@outlook.com <bettie7850@gmail.com>
Sent: Friday, August 28, 2020 2:17 PM
To: Jud Ashman <Jud.Ashman@gaithersburgmd.gov>; Planning External Mailing <Planning@gaithersburgmd.gov>
Subject: "NO" to the proposed DeVol application SP-8415-2020

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Dear Mayor/ Councilman/ Planner

I live in the Deer Park area which is a residential zone. I am concerned that the DeVol crematorium will bring an industrial zone into my neighborhood, and will negatively affect the people I care about. I don't want a tall "chimney" emitting smoke and chemicals into the air where thousands of residents live, work, and attend school. This parcel is not zoned for industrial use. I don't want the quality of life here changed by more traffic and smoke. Please reject this proposal.

Sent from [Mail](#) for Windows 10

Jasmine Forbes

From: Jasmine Forbes
Sent: Friday, August 28, 2020 4:45 PM
To: 'Gmail Pgibs'
Subject: RE: no crematorium

Good Afternoon,

Thank you for your correspondence related to Concept Site Plan application SP-8415-2020. Your correspondence will be included in the Council's record for their consideration. Please note that the Council's record on this application will close on September 16th. For information about the application, please visit the project page:

<https://www.gaithersburgmd.gov/government/projects-in-the-city/10-and-14-east-deer-park-drive> .

Regards,
Jasmine Forbes



Jasmine Forbes, Planner I
Planning and Code Administration

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Direct: 240-805-1069 | Main: 301-258-6330 | www.gaithersburgmd.gov
Jasmine.Forbes@gaithersburgmd.gov

From: Gmail Pgibs <pedro.gibs@gmail.com>
Sent: Friday, August 28, 2020 2:52 PM
To: Jasmine Forbes <Jasmine.Forbes@gaithersburgmd.gov>
Subject: Fwd: no crematorium

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I will move out if you do this. Its not acceptable to do this to the community. I pay way too much for this type of behavior

PG

Begin forwarded message:

From: Gmail Pgibs <pedro.gibs@gmail.com>
Date: August 28, 2020 at 2:50:23 PM EDT
To: Jud.Ashman@gaithersburgmd.gov
Subject: no crematorium

I will move out if you do this. Its not acceptable to do this to the community..

PG



August 28, 2020

Scott C. Wallace
301.517.4813
swallace@milesstockbridge.com

NOTICE OF VIRTUAL INFORMATIONAL MEETING

DeVol Funeral Home is hosting a Virtual Informational Meeting on
Wednesday, September 9, 2020 from 6:30 to 8:00 p.m.

The purpose of this virtual meeting is to review the Concept Site Plan Application referenced below and answer questions that members of the community may have about the proposed project. All neighbors and members of the public are welcome to attend. You may join this meeting by typing the link below into your browser:

<https://ringcentr.al/31AiAWI>

Password: 751582

Or, if you prefer to join by phone, please call 1-470-869-2200 and use Webinar ID #149 645 8746, Password: 751582. Alternate dial-in numbers are 1-646-357-3664, and if you are in the western portion of the US, the best number to use is 1-623-404-9000. The Webinar ID and Password are the same if you use one of the alternate dial-in numbers. For technical support, please contact Alphonso Nollie, who can be reached at 1-410-385-3554, or by email at anollie@milesstockbridge.com.

<u>Name of Plan:</u>	Concept Site Plan Application SP-8415-2020
<u>Applicant:</u>	DeVol Funeral Home
<u>Zoning:</u>	CD (Corridor Development)
<u>Area Included:</u>	2 acres (approx.)
<u>Location:</u>	10 and 14 East Deer Park Drive, in the southeast quadrant of the intersection of MD 355 and East Deer Park Drive, Gaithersburg, Maryland
<u>Proposed Project:</u>	Convert an existing house at 14 East Deer Park Drive, adjoining DeVol Funeral Home at 10 East Deer Park Drive, to a funeral home, which would include viewing parlors and an approximately 600 square foot addition for cremation services. The project also includes expansion of the existing parking lot and other minor site improvements.

Notice of Sept. 9 Virtual Informational Meeting
August 28, 2020
Page Two

The presentation materials for the meeting will be available for viewing and downloading online prior to the meeting on the City of Gaithersburg's Project Page* which can be accessed at:

<https://www.gaithersburgmd.gov/government/projects-in-the-city/10-and-14-east-deer-park-drive>

The meeting will begin with a presentation of the project by the consultant team. Following our presentation, the meeting will be opened for questions. Please do not hesitate to contact me if you have any questions regarding the project or the community meeting.

Very truly yours,



Scott C. Wallace

*Please note that this virtual meeting is not sponsored by the City of Gaithersburg. Information on this Application can be found on the City's Project Page.