

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**AIR AND RADIATION ADMINISTRATION
APPLICATION FOR A PERMIT TO CONSTRUCT**

DOCKET #09-20

COMPANY: Vaughn Greene Funeral Services, PA
LOCATION: 4905 York Road, Baltimore, MD 21212
APPLICATION: Installation of a Matthews Environmental Solutions Power-Pak II Plus human crematory.

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Application and Opportunity to Request an Informational Meeting
2	Permit to Construct Application Forms: Form 5 Application for Processing/Manufacturing Equipment Form 5EP Emission Point Data Form 5A Summary of Demonstrations for Meeting the Ambient Impact Requirement Form 5T Toxic Air Pollutants (TAP) Emissions Summary and Compliance Demonstration
3	Calculations of Emissions
4	Zoning Approval Letter

**DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION**

**NOTICE OF APPLICATION AND
OPPORTUNITY TO REQUEST AN INFORMATIONAL MEETING**

The Maryland Department of the Environment, Air and Radiation Administration (ARA) received a permit-to-construct application from Vaughn Greene Funeral Services, PA on June 8, 2020 for the installation of a Matthews Environmental Solutions Power-Pak II Plus human crematory. The proposed installation will be located at 4905 York Road, Baltimore, MD 21212.

The application and other supporting documents are available for public inspection on the Department's website. Look for Docket #09-20 at the following link:

<https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/index.aspx>

Pursuant to the Environment Article, Section 1-603, Annotated Code of Maryland, the Department will hold an informational meeting to discuss the application and the permit review process if the Department receives a written request for a meeting within 10 working days from the date of the second publication of this notice. All requests for an informational meeting should be emailed to Ms. Shannon Heafey at shannon.heafey@maryland.gov.

Further information may be obtained by contacting Ms. Shannon Heafey by email at shannon.heafey@maryland.gov or by phone at (410) 537-4433.

George S. Aburn, Jr., Director
Air and Radiation Administration

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us



Air and Radiation Management Administration ▪ Air Quality Permits Program

APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct

Registration Update

Initial Registration

1A. Owner of Equipment/Company Name

Vaughn Greene Funeral Services P.A

Mailing Address

4905 York Rd

Street Address

Baltimore Maryland 21212

City

State

Zip

Telephone Number

(410) 433-7500

Signature

Bill Miller

Bill Miller, Managing Member

Print Name and Title

DO NOT WRITE IN THIS BLOCK
2. REGISTRATION NUMBER

County No.

--	--

1-2

Premises No.

--	--	--	--

3-6

Registration Class

--

7

Equipment No.

--	--	--	--

8-11

Data Year

--	--

12-13

Application Date

3/20/2020

Date

1B. Equipment Location and Telephone Number (if different from above)

Street Number and Street Name

SAME

City/Town

State

Zip

Telephone Number

Premises Name (if different from above)

3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)

Status

A

15

New Construction
Begun (MM/YY)

	T	B	D
--	---	---	---

16-19

New Construction
Completed (MM/YY)

	T	B	D
--	---	---	---

20-23

Existing Initial
Operation (MM/YY)

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20-23

4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)
Mathews Environmental Solutions; PPII Plus (3.0 MMBTU/hr) / Multi-Chamber cremation unit to replace one existing unit

5. Workmen's Compensation Coverage

WC 0000004630AP

Aug 19, 2020

Company

Harleysville Preferred Insurance Co.

Binder/Policy Number

Expiration Date

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time 1

6B. Number of Stack/Emission Points Associated with this Equipment 1



7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name _____ Title _____
 Company _____
 Mailing Address/Street _____
 City/Town _____ State _____ Telephone (_____) _____

8. Major Activity, Product or Service of Company at this Location

CREMATION OF HUMAN REMAINS

9. Control Devices Associated with this Equipment

None
 24-0

Simple/Multiple Cyclone	Spray/Adsorb Tower	Venturi Scrubber	Carbon Adsorber	Electrostatic Precipitator	Baghouse	Thermal/Catalytic Afterburner	Dry Scrubber
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24-1	24-2	24-3	24-4	24-5	24-6	24-7	24-8

Other
 Describe _____
 24-9

10. Annual Fuel Consumption for this Equipment

OIL-1000 GALLONS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 26-31	SULFUR % <input type="text"/> <input type="text"/> 32-33	GRADE <input type="text"/> 34	NATURAL GAS-1000 FT ³ <input type="text"/> <input type="text"/> 1 <input type="text"/> <input type="text"/> 2 <input type="text"/> <input type="text"/> 3 <input type="text"/> <input type="text"/> 2 35-41	LP GAS-100 GALLONS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 42-45	GRADE <input type="text"/> 43-44
COAL- TONS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 46-52	SULFUR % <input type="text"/> <input type="text"/> 53-55	ASH% <input type="text"/> <input type="text"/> 56-58	WOOD-TONS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 59-63	MOISTURE % <input type="text"/> <input type="text"/> 64-65	

OTHER FUELS ANNUAL AMOUNT CONSUMED OTHER FUEL ANNUAL AMOUNT CONSUMED
 (Specify Type) 66-1 (Specify Units of Measure) (Specify Type) 66-2 (Specify Units of Measure)
 1=Coke 2= COG 3=BFG 4=Other

11. Operating Schedule (for this Equipment)

Continuous Operation <input checked="" type="checkbox"/> 67-1	Batch Process <input type="checkbox"/> 67-2	Hours per Batch <input type="text"/> <input type="text"/> 68-69	Batch per Week <input type="text"/> 70-71	Hours per Day <input type="text"/> 1 <input type="text"/> 2 70-71	Days Per Week <input type="text"/> 6 72	Days per Year <input type="text"/> 3 <input type="text"/> 1 <input type="text"/> 2 73-75
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Seasonal Variation in Operation:
 No Variation 76
 Winter Percent 77-78
 Spring Percent 79-80
 Summer Percent 81-82
 Fall Percent 83-84
 (Total Seasons= 100%)

12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only? (Y/N)

N
85

If not, then

Height Above Ground (FT)

4 0

86-88

Inside Diameter at Top (in)

2 0

89-91

Exit Temperature (°F)

1 1 0 0

92-95

Exit Velocity (FT/SEC)

2 0

96-98

NOTE:

Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.

13. Input Materials (for this equipment only)

Is any of this data to be considered confidential? N (Y or N)

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	INPUT RATE		UNITS
				UNITS	PER YEAR	
1.	HUMAN REMAINS		175	lbs/hr		
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL

14. Output Materials (for this equipment)

Process/Product Stream

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	OUTPUT RATE		UNITS
				UNITS	PER YEAR	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL

15. Waste Streams- Solid and Liquid

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	OUTPUT RATE		UNITS
				UNITS	PER YEAR	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL

16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter

		4	9	0
--	--	---	---	---

99-104

Oxides of Sulfur

		2	2	8
--	--	---	---	---

105-110

Oxides of Nitrogen

		3	7	4
--	--	---	---	---

111-116

Carbon Monoxide

		3	0	9
--	--	---	---	---

177-122

Volatile Organic Compounds

		0	3	1
--	--	---	---	---

123-128

PM-10

		4	9	0
--	--	---	---	---

129-134

17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter

--	--	--	--	--	--

135-139

Oxides of Sulfur

--	--	--	--	--	--

140-144

Oxides of Nitrogen

--	--	--	--	--	--

145-149

Carbon Monoxide

--	--	--	--	--	--

150-154

Volatile Organic Compounds

--	--	--	--	--	--

155-159

PM-10

--	--	--	--	--	--

160-164

Method Used to Determine Emissions (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

TSP

2

165

SOX

2

166

NOX

2

167

CO

2

168

VOC

2

169

PM10

2

170

AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY

18. Date Rec'd. Local

Date Rec'd. State

Return to Local Jurisdiction

Date _____ By _____

Reviewed by Local Jurisdiction

Date _____ By _____

Reviewed by State

Date _____ By _____

19. Inventory Date

Month/Year

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171-174

Equipment Code

--	--	--

175-177

SCC Code

--	--	--	--	--	--	--

178-185

20. Annual Operating Rate

--	--	--	--	--	--

186-192

Maximum Design Hourly Rate

--	--	--	--	--	--

193-199

Permit to Operate Month

--	--

200-201

Transaction Date (MM/DD/YR)

--	--	--	--	--	--

202-207

Staff Code

--	--	--

208-210

VOC Code

--	--

211 212

SIP Code

--	--

213 214

Regulation Code

--	--	--	--

215-218

Confidentiality

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219

Point Description

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

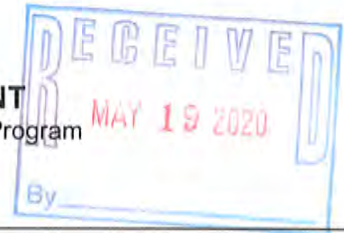
220-238

Action

--

239

A: Add
C: Change



FORM 5EP: Emission Point Data

Complete one (1) Form 5EP for EACH emission point (stack or fugitive emissions) related to the proposed installation.

Applicant Name: Vaughn Greene Funeral Services

1. Emission Point Identification Name/Number

List the applicant assigned name/number for this emission point and use this value on the attached required plot plan:
 Unit 01 (Power Pak II Plus, IE43-PPII Plus)

2. Emission Point Description

Describe the emission point including all associated equipment and control devices:
 Matthews Environmental Solutions - Nat Gas Fired Multiple Chamber cremation unit. No Add On Control Device

3. Emissions Schedule for the Emission Point

Continuous or Intermittent (C/I)?	1	Seasonal Variation	
		Check box if none: <input checked="" type="checkbox"/> Otherwise estimate seasonal variation:	
Minutes per hour:	60	Winter Percent	
Hours per day:	12	Spring Percent	
Days per week:	6	Summer Percent	
Weeks per year:	52	Fall Percent	

4. Emission Point Information

Height above ground (ft):	40	Length and width dimensions at top of rectangular stack (ft):	Length:	Width:
Height above structures (ft):				
Exit temperature (°F):	1100	Inside diameter at top of round stack (ft):		1.67
Exit velocity (ft/min):	1200	Distance from emission point to nearest property line (ft):		105
Exhaust gas volumetric flow rate (acfm):	2300	Building dimensions if emission point is located on building (ft)	Height 35.4375	Length 105 Width 58.5833

5. Control Devices Associated with the Emission Point

Identify each control device associated with the emission point and indicate the number of devices. **A Form 6 is also required for each control device.** If none check none:

- None
- Baghouse No. _____
- Cyclone No. _____
- Elec. Precipitator (ESP) No. _____
- Dust Suppression System No. _____
- Venturi Scrubber No. _____
- Spray Tower/Packed Bed No. _____
- Carbon Adsorber No. _____
 - Cartridge/Canister
 - Regenerative
- Thermal Oxidizer No. _____
 - Regenerative
- Catalytic Oxidizer No. _____
- Nitrogen Oxides Reduction No. _____
 - Selective
 - Catalytic
 - Non-Selective
 - Non-Catalytic
- Other No. _____
Specify:

FORM 5EP: Emission Point Data

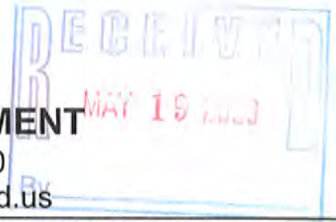
6. Estimated Emissions from the Emission Point

Criteria Pollutants	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
Particulate Matter (filterable as PM10)	0.40862	0.40862	4.9	0.7649
Particulate Matter (filterable as PM2.5)	0.40862	0.40862	4.9	0.7649
Particulate Matter (condensables)	0.40862	0.40862	4.9	0.7649
Volatile Organic Compounds (VOC)	0.02616	0.02616	0.31	0.0489
Oxides of Sulfur (SOx)	0.190	0.190	2.28	0.3554
Oxides of Nitrogen (NOx)	0.3115	0.3115	3.74	0.5831
Carbon Monoxide (CO)	0.25812	0.25812	3.09	0.4832
Lead (Pb)				
Greenhouse Gases (GHG)	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
Carbon Dioxide (CO ₂)				
Methane (CH ₄)				
Nitrous Oxide (N ₂ O)				
Hydrofluorocarbons (HFCs)				
Perfluorocarbons (PFCs)				
Sulfur Hexafluoride (SF ₆)				
Total GHG (as CO ₂ e)				
List individual federal Hazardous Air Pollutants (HAP) below:	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)

(Attach additional sheets as necessary.)

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Air and Radiation Management Administration • Air Quality Permits Program

SUMMARY OF DEMONSTRATIONS FOR MEETING THE AMBIENT IMPACT REQUIREMENT (26.11.15.05) AND THE T-BACT REQUIREMENT (26.11.15.06)

DO NOT WRITE IN THIS SPACE

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Company Name Vaughn Greene Funeral Services P.A.

- Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

<u>Emission Reduction Option</u>	<u>% Emission Reduction</u>	<u>COSTS</u>	
		<u>Capital</u>	<u>Annual Operating</u>
1. > 1 Second retention time in Secondary Chamber @ 1600F	Unknown		
2. Temperature Monitor and Recorder	Unknown	3,000	100
3. No Burning of PVC plastic bags	Unknown		
4.			
5.			

- Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

3. List screening levels and highest estimated off-site concentrations ($\mu\text{g}/\text{m}^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged from the installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

SEE DISPERSION MODEL ATTACHED

Toxic Air Pollutant	CAS Number	SCREENING LEVEL(S)			OFF-SITE CONCENTRATIONS		
		1-HR	8-HR	Annual	1-HR	8-HR	Annual
1 _____	_____	_____	_____	_____	_____	_____	_____
2 _____	_____	_____	_____	_____	_____	_____	_____
3 _____	_____	_____	_____	_____	_____	_____	_____
4 _____	_____	_____	_____	_____	_____	_____	_____
5 _____	_____	_____	_____	_____	_____	_____	_____
6 _____	_____	_____	_____	_____	_____	_____	_____
7 _____	_____	_____	_____	_____	_____	_____	_____
8 _____	_____	_____	_____	_____	_____	_____	_____
9 _____	_____	_____	_____	_____	_____	_____	_____
10 _____	_____	_____	_____	_____	_____	_____	_____
11 _____	_____	_____	_____	_____	_____	_____	_____
12 _____	_____	_____	_____	_____	_____	_____	_____
13 _____	_____	_____	_____	_____	_____	_____	_____
14 _____	_____	_____	_____	_____	_____	_____	_____
15 _____	_____	_____	_____	_____	_____	_____	_____
16 _____	_____	_____	_____	_____	_____	_____	_____

If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

Allowable Emissions are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).





FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Applicant Name: _____ **SEE TOXYTOOL RESULTS ATTACHED**

Step 1: Quantify premises-wide emissions of Toxic Air Pollutants (TAP) from new and existing installations in accordance with COMAR 26.11.15.04. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Class I or Class II?	Screening Levels ($\mu\text{g}/\text{m}^3$)			Estimated Premises Wide Emissions of TAP				
			1-hour	8-hour	Annual	Actual Total Existing TAP Emissions (lb/hr)	Projected Emissions from Proposed Installation (lb/hr)	Premises Wide Total TAP Emissions (lb/yr)		
			ex. ethanol	64175	II	18843	3769	N/A	0.60	0.15
ex. benzene	71432	I	80	16	0.13	0.5	0.75	1.00	400	

(attach additional sheets as necessary.)

Note: Screening levels can be obtained from the Department's website (<http://www.mde.maryland.gov>) or by calling the Department.

Step 2: Determine which TAPs are exempt from further review. A TAP that meets either of the following Class I or Class II small quantity emitter exemptions is exempt from further TAP compliance demonstration requirements under Step 3 and Step 4.

Class II TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(a))
 A Class II TAP is exempt from Step 3 and Step 4 if the Class II TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour, and any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 $\mu\text{g}/\text{m}^3$.

Class I TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(b))
 A Class I TAP is exempt from Step 3 and Step 4 if the Class I TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour and 350 pounds per year, any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 $\mu\text{g}/\text{m}^3$, and any applicable annual screening level for the TAP must be greater than 1 $\mu\text{g}/\text{m}^3$.

If a TAP meets either the Class I or Class II TAP Small Quantity Emitter Exemption Requirements, no further review under Step 3 and Step 4 are required for that specific TAP.

FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Step 3: Best Available Control Technology for Toxics Requirement (T-BACT, COMAR 26.11.15.05)

In the following table, list all TAP emission reduction options considered when determining T-BACT for the proposed installation. The options should be listed in order beginning with the most effective control strategy to the least effective strategy. Attach supporting documentation as necessary.

Target Pollutants	Emission Control Option	% Emission Reduction	Costs		T-BACT Option Selected? (yes/no)
			Capital	Annual Operating	
ex. ethanol and benzene	Thermal Oxidizer	99	\$50,000	\$100,000	no
ex. ethanol and benzene	Low VOC materials	80	0	\$100,000	yes

(attach additional sheets as necessary)

Step 4: Demonstrating Compliance with the Ambient Impact Requirement (COMAR 26.11.15.06)

Each TAP not exempt in Step 2 must be individually evaluated to determine that the emissions of the TAP will not adversely impact public health. The evaluation consists of a series of increasingly non-conservative (and increasingly rigorous) tests. Once a TAP passes a test in the evaluation, no further analysis is required for that TAP. "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" provides guidance on conducting the evaluation. Summarize your results in the following table. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Screening Levels (µg/m ³)			Premises Wide Total TAP Emissions		Allowable Emissions Rate (AER) per COMAR 26.11.16.02A (lb/yr)	Off-site Concentrations per Screening Analysis (µg/m ³)			Compliance Method Used? AER or Screen
		Annual		(lb/hr)	(lb/yr)	1-hour		8-hour	Annual		
		1-hour	8-hour							1-hour	
ex. ethanol	64175	18843	3769	0.75	1500	0.89	N/A	N/A	N/A	N/A	AER
ex. benzene	71432	80	16	1.00	400	0.04	36.52	1.5	1.05	0.12	Screen

(attach additional sheets as necessary)

If compliance with the ambient impact requirement cannot be met using the allowable emissions rate method or the screening analysis method, refined dispersion modeling techniques may be required. Please consult with the Department's Air Quality Permit Program prior to conducting dispersion modeling methods to demonstrate compliance.

Calculation Of Emissions

Estimated Emission Calculation

Matthews Environmental Solutions
(previously Matthews Cremation Division)
Crematory Incinerator Model IE43-PPII Plus

Total Incinerator Burn Capacity 175 lb/hr of remains (type 4) and associated containers (type 0)
Flue gas flow rate = 1175 dscfm 12 Hours/Day X 6 Days/Week X 52 Weeks/Year
(100 % Excess Air) = 3744 Hours/Year

Total Emission Rate = Incinerator Burn Rate X Emission Factor

Sulfur Dioxide (SO₂)

$$\frac{175 \text{ lb/hr X } 2.17 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.190 \text{ lb/hr}$$

$$= 0.355446 \text{ TPY}$$

$$\frac{0.189875 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{ft}^3 \text{ X } 2.61 \text{ mg/m}^3} = 16.55 \text{ ppmv}$$

Nitrogen Oxide (NO_x - as Nitrogen Dioxide)

$$\frac{175 \text{ lb/hr X } 3.56 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.3115 \text{ lb/hr}$$

$$= 0.583128 \text{ TPY}$$

$$\frac{0.3115 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{ft}^3 \text{ X } 1.88 \text{ mg/m}^3} = 38.11 \text{ ppmv}$$

Particulates (PM & PM₁₀)

$$\frac{175 \text{ lb/hr X } 4.67 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.408625 \text{ lb/hr}$$

$$= 0.764946 \text{ TPY}$$

$$\frac{0.408625 \text{ lb/hr X } 7.00\text{E}+03 \text{ gr/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr}} = 0.04 \text{ gr/dscf}$$

Carbon Monoxide (CO)

$$\frac{175 \text{ lb/hr X } 2.95 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.258125 \text{ lb/hr}$$

$$= 0.48321 \text{ TPY}$$

$$\frac{0.258125 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{ft}^3 \text{ X } 1.14 \text{ mg/m}^3} = 52.08 \text{ ppmv}$$

Hydrocarbons (TOC/VOC - methane)

$$\frac{175 \text{ lb/hr X } 2.99\text{E}-01 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.026163 \text{ lb/hr}$$

$$= 0.048976 \text{ TPY}$$

$$\frac{0.0261625 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{ft}^3 \text{ X } 0.65 \text{ mg/m}^3} = 9.16 \text{ ppmv}$$

Notes:

1. Incinerator Emissions based on EPA emissions from Table 2.3-1 and 2.3-2 of AP-42 (5th Edition)
2. All conversion factors from AP-42 Appendix A.



BALTIMORE CITY
DEPARTMENT OF HOUSING &
COMMUNITY DEVELOPMENT

June 04, 2020

Wright, Constable & Skeen, LLP
c/o J. Neil Lanzi
102 W. Pennsylvania Avenue, Suite 406
Towson, MD 21204

Re: 4903-4907 York Road

Dear Mr. Lanzi:

This letter is in response to your zoning inquiry for the above referenced property.

Please be advised that the subject property is located in a C-2 Commercial District and authorized for use as funeral home in compliance with all applicable zoning regulations. Per Subsection 1-306(s)(2) of the Zoning Code, a funeral home use includes the use of the premises for a crematorium. The use as stated would be allowed in conjunction with the existing funeral home. Our records show no zoning violations with respect to this property.

Should you have any additional questions regarding this matter, please contact the Zoning Office at 410-396-4126.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Veale', written in a cursive style.

Geoffrey Veale
Zoning Administrator