

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

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

**DOCKET #09-21**

COMPANY: Newman Funeral Home, P.A.  
LOCATION: 1100 Memorial Drive, Oakland, MD. 21550  
APPLICATION: Installation of one (1) human crematory

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Application and Informational Meeting
2	Permit to Construct Application Forms – Forms 5, 5EP, 5T, Site Location Map and Site Plan, manufacturer specifications and emissions calculations, stack test results, zoning approval documentation and process flow diagram.

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

**NOTICE OF APPLICATION AND INFORMATIONAL MEETING**

The Maryland Department of the Environment, Air and Radiation Administration (ARA) received a permit-to-construct application from Newman Funeral Homes, P.A. on May 6, 2021, for the installation of one (1) human crematory. The proposed installation will be located at 1100 Memorial Drive, Oakland, MD 21550.

An Informational Meeting will be held on September 27, 2021 at 5:00 PM at Newman Funeral Homes, P.A. located at 1100 Memorial Drive, Oakland, MD 21550.

Pursuant to the Environment Article, Section 1-603, Annotated Code of Maryland, the Informational Meeting has been scheduled so that citizens can discuss the application and the permit review process with the applicant and the Department.

The application and other supporting documents are available for public inspection on the Department's website. Look for Docket #09-21 at the following link:

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

The Department will provide an interpreter for deaf and hearing-impaired persons provided that a request is made for such service at least ten (10) days prior to the meeting.

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

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



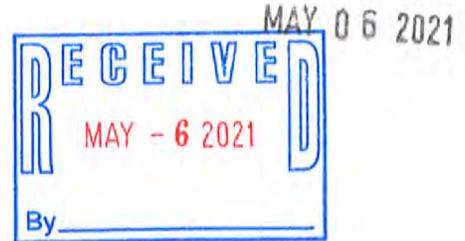
Family Owned Since 1955

**NEWMAN**

Funeral Homes, P.A.

179 Miller St., P.O. Box 275, Grantsville, MD 21536 301.895.5188  
1100 Memorial Dr., P.O. Box 386, Oakland, MD 21550 301.533.1960  
26722 Garrett Hwy., Accident, MD 21520 301.746.8700  
943 Second Ave., Friendsville, MD 21531 301.746.5800  
Toll Free 800.427.5622

April 30, 2021



Maryland Department of the Environment  
Air and Radiation Management Administration  
Air Quality Permits Program  
1800 Washington Blvd.  
Baltimore, MD 21230

Dear Sir or Madam,

It is our intent to install a new human crematory unit at our facility at 1100 Memorial Drive, Oakland, MD, 21550.

I have enclosed three (3) sets of the application for the prospective unit. If you have any questions, please contact me at 301-895-5188.

Thank you for your attention.

Sincerely,

Donald Lynn Newman, President

DLN  
Encl.

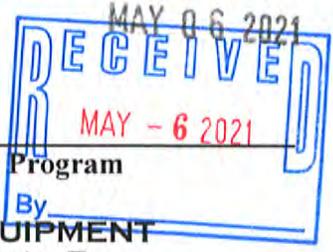
MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Newman Funeral Homes, P.A.

Mailing Address

P.O. Box 275, 179 Miller Street

Street Address

Grantsville, MD 21536  
City State Zip

Telephone Number

( 301 ) 895-5188

Signature

*Donald Lynn Newman*

Donald Lynn Newman, President

Print Name and Title

DO NOT WRITE IN THIS BLOCK  
2. REGISTRATION NUMBER

County No.

Premises No.

1-2

3-6

Registration Class

Equipment No.

7

8-11

Data Year

12-13

Application Date

04/29/2021

Date

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

1100 Memorial Drive

Street Number and Street Name

Oakland MD 21550 ( 301 ) 533-1960  
City/Town State Zip Telephone Number

Newman Funeral Homes, P.A.

Premises Name (if different from above)

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

Status	New Construction Begun (MM/YY)	New Construction Completed (MM/YY)	Existing Initial Operation (MM/YY)
A 15	T B D 16-19	T B D 20-23	 20-23

4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)

Matthews Environmental Solutions; PPI (3.0 MMBTU/hr) / Multi-Chamber cremation unit

5. Workmen's Compensation Coverage

Q85 0109295

01/01/2022

Binder/Policy Number

Expiration Date

Company Erie Insurance Exchange

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



Erie Insurance Place  
PA 16530

**WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY WC 00 00 01A**  
INCLUDES COPYRIGHT MATERIAL OF THE NATIONAL COUNCIL ON COMPENSATION INSURANCE, USED WITH ITS PERMISSION  
INFORMATION PAGE

PRIOR POLICY NUMBER - Q85 0109295

<b>Agent</b>	<b>Insurance Is Provided By</b>	<b>Policy Number</b>
AB6148 PAUL SPROWLS AGENCY INC	ERIE INSURANCE EXCHANGE 18457	Q85 0109295

**ITEM 1. Named Insured and Address**

NEWMAN REAL ESTATE 1 LLC  
& ENDT #1  
PO BOX 275  
GRANTSVILLE MD 21536-0275

RENEWAL CERTIFICATE  
LIMITED LIABILITY CO GARRETT CO  
OTHER WORKPLACES NOT SHOWN ABOVE - AS SCHEDULED

ITEM 2. THE POLICY PERIOD IS FROM 01/01/21 TO 01/01/22 AT THE INSUREDS MAILING ADDRESS.

ITEM 3.A. WORKERS COMPENSATION INSURANCE- PART ONE OF THE POLICY APPLIES TO THE WORKERS COMPENSATION LAW OF THE STATES LISTED HERE- MD, PA.

ITEM 3.B. EMPLOYERS LIABILITY INSURANCE- PART TWO OF THE POLICY APPLIES TO WORK IN EACH STATE LISTED IN ITEM 3.A. THE LIMITS OF OUR LIABILITY UNDER PART TWO ARE-

BODILY INJURY BY ACCIDENT	\$500,000 EACH ACCIDENT
BODILY INJURY BY DISEASE	\$500,000 POLICY LIMIT
BODILY INJURY BY DISEASE	\$500,000 EACH EMPLOYEE

ITEM 3.C. OTHER STATES INSURANCE- PART THREE OF THE POLICY APPLIES TO THE STATES, IF ANY, LISTED HERE- ALL STATES EXCEPT ND, OH, WA, WY, STATES DESIGNATED IN ITEM 3.A.,

ITEM 3.D. SEE ATTACHED ENDORSEMENT SCHEDULE

ITEM 4. THE PREMIUM FOR THIS POLICY WILL BE DETERMINED BY OUR MANUALS OF RULES, CLASSIFICATIONS, RATES AND RATING PLANS. ALL INFORMATION REQUIRED BELOW IS SUBJECT TO VERIFICATION AND CHANGE BY AUDIT.

	SEE ATTACHED SCHEDULE OF OPERATIONS		1,426
9807	PREMIUM FOR INCREASED COV TWO LIMITS	.0110	10
9848	AMT FOR INCREASED COV TWO MIN PREMIUM		90
	EXPENSE CONSTANT		210
	TOTAL ESTIMATED ANNUAL PREMIUM		\$1,736
	PA EMPLOYER ASSESSMENT 2.02%		\$0
	DEPOSIT PREMIUM		\$1,736

CODE 0938

MINIMUM PREMIUM \$500

RETURNED PAYMENT FEES WILL BE ADDED TO YOUR ACCOUNT.



\*\* SCHEDULE OF OPERATIONS \*\*

ITEM 4. ST LOC CODE NO	CLASSIFICATIONS	PREM BASIS TOTAL-EST ANN REMUN	RATE PER \$100 REMUN	EST ANNUAL PREMIUM
MD 001 9620	CREMATORY OPERATION AND DRIVERS	65,400	.96	\$628
9620	FUNERAL DIRECTOR AND DRIVERS	69,000	.96	662
9620	UNDERTAKER AND DRIVERS	1,100	.96	11
	TOTAL BY LOCATION			\$1,301
	SUB-TOTAL			1,301
9740	TERRORISM		.072	98
9741	CATASTROPHE (OTHER THAN CERTIFIED ACTS OF TERRORISM)		.020	27
	TOTAL FOR MARYLAND			\$1,426
PA 0997	FUNERAL DIRECTORS	IF ANY	.78	0
	SUB-TOTAL			0
9740	TERRORISM		.035	0
9741	CATASTROPHE (OTHER THAN CERTIFIED ACTS OF TERRORISM)		.020	0
	TOTAL FOR PENNSYLVANIA			\$0
	TOTAL SCHEDULE OF OPERATIONS PREMIUM			\$1,426



**WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY WC 00 00 01A**  
 INCLUDES COPYRIGHT MATERIAL OF THE NATIONAL COUNCIL ON COMPENSATION INSURANCE, USED WITH ITS PERMISSION  
**INFORMATION PAGE**

100 Erie Insurance Place  
 Erie, PA 16530

PRIOR POLICY NUMBER - Q85 0109295

Agent	Insurance Is Provided By	Policy Number
AB6148 PAUL SPROWLS AGENCY INC	ERIE INSURANCE EXCHANGE 18457	Q85 0109295

BRANCH CODE

**ITEM 1. Named Insured and Address**

NEWMAN REAL ESTATE 1 LLC  
 & ENDT #1  
 PO BOX 275  
 GRANTSVILLE MD 21536-0275

**\*\* SCHEDULE OF PRIMARY AND ADDITIONAL LOCATIONS \*\***

- LOC 001 179 MILLER ST, GRANTSVILLE, MD 21536
- LOC 002 943 2ND AVE, FRIENDSVILLE, MD 21531
- LOC 003 26722 GARRETT HWY, ACCIDENT, MD 21520
- LOC 004 1100 MEMORIAL DR, OAKLAND, MD 21550
- LOC 005 9168 MASON DIXON HWY, SALISBURY, MD 15558

**\*\* E N D O R S E M E N T S C H E D U L E \*\***

THIS POLICY INCLUDES THESE ENDORSEMENTS AND SCHEDULES- WC-C1/15,  
 WC-000308\* (MD), WC-190602 (MD), WC-ENDT1 (MD), WC-190601G\* (MD), WC-990603  
 (MD), WC-000414A\* (MD, PA), WC-UF4839\* (MD, PA), WC-000419\* (MD, PA), WC-UF4811\*  
 (MD), WC-000421E\* (MD, PA), WC-000422C\* (MD, PA), WC-UF5215\* (MD, PA), WC-UF0143  
 \* (MD, PA), WC-000000C (MD, PA), WC-UFB213\* (MD, PA), WC-000424\* (MD), WC-000425  
 \* (MD, PA), WC-370405\* (PA), WC-UF4810\* (PA), WC-370601 (PA), WC-370602 (PA),  
 WC-370603A (PA), WC-UF4446\* (PA), WC-UF3001\* (PA), WC-UF3228\* (PA), WC-UFB908\*  
 (PA), WC-370401\* (PA).

**\*\* MISCELLANEOUS INFORMATION PAGE SCHEDULE \*\***

**ENDORSEMENT 1**

IT IS AGREED AND UNDERSTOOD THAT THE NAMED INSURED IS AMENDED TO READ -  
 NEWMAN REAL ESTATE 1 LLC  
 & NEWMAN FUNERAL HOMES PA  
 & NEWMAN FUNERAL HOMES INC

**ENDORSEMENT 308**

THE FOLLOWING IS USED WITH WC000308 -  
 OTHERS - DONALD L NEWMAN  
 CAROL NEWMAN

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

Name Donald Lynn Newman Title President  
 Company Newman Funeral Homes, P.A.  
 Mailing Address/Street P.O. Box 275, 179 Miller Street  
 City/Town Grantsville State MD Telephone (301) 895-5188

**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 <input type="checkbox"/> 24-1	Spray/Adsorb Tower <input type="checkbox"/> 24-2	Venturi Scrubber <input type="checkbox"/> 24-3	Carbon Adsorber <input type="checkbox"/> 24-4	Electrostatic Precipitator <input type="checkbox"/> 24-5	Baghouse <input type="checkbox"/> 24-6	Thermal/Catalytic Afterburner <input type="checkbox"/> 24-7	Dry Scrubber <input type="checkbox"/> 24-8
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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 <sup>3</sup> <input type="text"/> <input type="text"/> 1 <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 (Specify Type) <input type="text"/> ANNUAL AMOUNT CONSUMED (Specify Units of Measure) 66-1	OTHER FUEL (Specify Type) <input type="text"/> ANNUAL AMOUNT CONSUMED (Specify Units of Measure) 66-2
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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"/> <input type="text"/> 72	Days Per Week <input type="text"/> 73-75
--	--	---	---	--	--

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  6

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		150	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

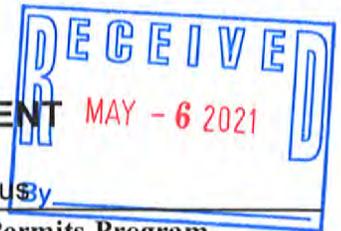
	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	OUTPUT RATE		UNITS
				UNITS	PER YEAR	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL



**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**

**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** Newman Funeral Homes, 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

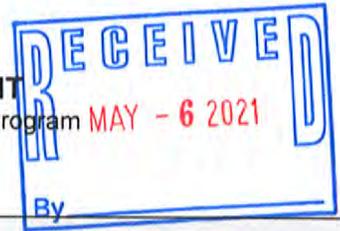
Toxic Air Pollutant	CAS Number	SCREENING LEVEL(S)			OFF-SITE CONCENTRATIONS		
		1-HR	8-HR	Annual	1-HR	8-HR	Annual
1 _____	_____	_____	_____	_____	_____	_____	_____
2 _____	_____	_____	_____	_____	_____	_____	_____
3 _____	_____	_____	_____	_____	_____	_____	_____
4 _____	_____	_____	_____	_____	_____	_____	_____
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 5EP: Emission Point Data**

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

**Applicant Name:** Newman Funeral Homes, P.A.

**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 I, IE43-PPI)

**2. Emission Point Description**

Describe the emission point including all associated equipment and control devices:  
Mathews 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):	46	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):	250 ft		
Exhaust gas volumetric flow rate (acfm):	2100	Building dimensions if emission point is located on building (ft)	Height 38 ft	Length 108 ft	Width 135 ft

**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:



**MARYLAND DEPARTMENT OF THE ENVIRONMENT**  
 Air and Radiation Management Administration • Air Quality Permits Program  
 1800 Washington Boulevard • Baltimore, Maryland 21230  
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**FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration**

**Applicant Name:** Newman Funeral Homes, P.A. \*\*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 (µg/m <sup>3</sup> )			Estimated Premises Wide Emissions of TAP			
			1-hour	8-hour	Annual	Actual Total Existing TAP Emissions (lb/hr)	Projected TAP Emissions from Proposed Installation (lb/hr)	Premises Wide Total TAP Emissions (lb/hr)	Premises Wide Total TAP Emissions (lb/yr)
ex. ethanol	64175	II	18843	3769	N/A	0.60	0.15	0.75	1500
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 µg/m<sup>3</sup>.

**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 µg/m<sup>3</sup>, and any applicable annual screening level for the TAP must be greater than 1 µg/m<sup>3</sup>.

**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 <sup>3</sup> )			Premises Wide Total TAP Emissions		Allowable Emissions Rate (AER) per COMAR 26.11.16.02A		Off-site Concentrations per Screening Analysis (µg/m <sup>3</sup> )			Compliance Method Used? AER or Screen
		1-hour	8-hour	Annual	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	1-hour	8-hour	Annual	
ex: ethanol	64175	18843	3769	N/A	0.75	1500	0.89	N/A	N/A	N/A	N/A	AER
ex: benzene	71432	80	16	0.13	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.

04/22/21  
13:00:30

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 13043 \*\*\*

Newman FH

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT  
EMISSION RATE (G/S) = 0.126000  
STACK HEIGHT (M) = 14.0200  
STK INSIDE DIAM (M) = 0.5080  
STK EXIT VELOCITY (M/S) = 6.0960  
STK GAS EXIT TEMP (K) = 866.0000  
AMBIENT AIR TEMP (K) = 293.0000  
RECEPTOR HEIGHT (M) = 0.0000  
URBAN/RURAL OPTION = RURAL  
BUILDING HEIGHT (M) = 11.5800  
MIN HORIZ BLDG DIM (M) = 32.9200  
MAX HORIZ BLDG DIM (M) = 41.1500

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 2.552 M\*\*4/S\*\*3; MOM. FLUX = 0.811 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
76.	85.15	6	3.0	3.6	10000.0	15.62	3.16	8.93	SS
100.	71.76	6	3.5	4.2	10000.0	15.71	4.07	10.39	SS
200.	30.99	6	4.0	4.8	10000.0	17.91	7.73	12.55	SS
300.	21.34	4	2.5	2.6	800.0	18.89	22.61	16.82	SS
400.	17.26	4	2.0	2.1	640.0	22.28	29.45	19.47	SS
500.	14.35	4	2.0	2.1	640.0	22.28	36.15	22.34	SS
600.	12.79	6	2.0	2.4	10000.0	25.49	21.24	15.30	SS
700.	12.10	6	2.0	2.4	10000.0	25.49	24.46	16.12	SS
800.	11.45	6	2.0	2.4	10000.0	25.49	27.63	16.92	SS
900.	11.03	6	1.5	1.8	10000.0	28.23	30.78	17.32	SS
1000.	10.72	6	1.5	1.8	10000.0	28.23	33.88	18.08	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 76. M:  
 76. 85.15 6 3.0 3.6 10000.0 15.62 3.16 8.93 SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)  
 DWASH=NO MEANS NO BUILDING DOWNWASH USED  
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED  
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3\*LB

\*\*\*\*\*  
 \* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR \*  
 \* SIMPLE ELEVATED TERRAIN PROCEDURE \*  
 \*\*\*\*\*

TERRAIN HT (M)	DISTANCE RANGE (M)	
	MINIMUM	MAXIMUM
0.	76.	1000.

\*\*\*\*\*  
 \*\*\* REGULATORY (Default) \*\*\*  
 PERFORMING CAVITY CALCULATIONS  
 WITH ORIGINAL SCREEN CAVITY MODEL  
 (BRODE, 1988)  
 \*\*\*\*\*

*** CAVITY CALCULATION - 1 ***	*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = 0.000	CONC (UG/M**3) = 0.000
CRIT WS @10M (M/S) = 99.99	CRIT WS @10M (M/S) = 99.99
CRIT WS @ HS (M/S) = 99.99	CRIT WS @ HS (M/S) = 99.99
DILUTION WS (M/S) = 99.99	DILUTION WS (M/S) = 99.99
CAVITY HT (M) = 12.04	CAVITY HT (M) = 11.76
CAVITY LENGTH (M) = 38.13	CAVITY LENGTH (M) = 33.68
ALONGWIND DIM (M) = 32.92	ALONGWIND DIM (M) = 41.15

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

\*\*\*\*\*  
 END OF CAVITY CALCULATIONS  
 \*\*\*\*\*

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----

SIMPLE TERRAIN

85.15

76.

0.

\*\*\*\*\*  
\*\* REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS \*\*  
\*\*\*\*\*

Newman Funeral Home  
Newman Funeral Home  
22-Apr-21

Facility Name  
Your Name  
Date

HUMAN (number)	Animal (lbs)
1	
4	
3000	

Equivalent
1.0
4.0
3000.0

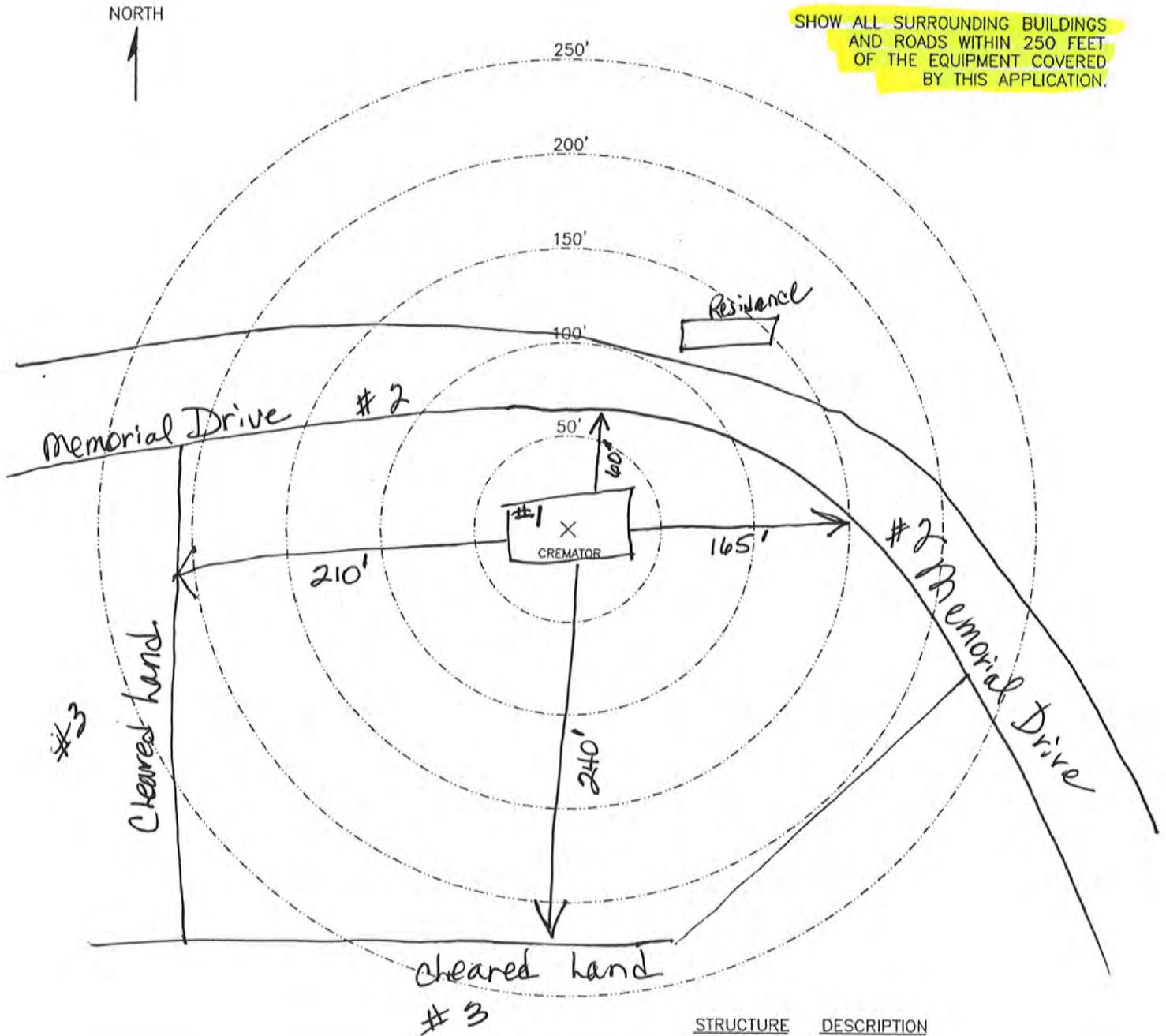
85.15  
Toxytool 2015

Screen3 maximum concentration (1 lb/yr emission rate)

CAS	POLLUTANT	Emission Factor (EPA FIRE) (Pounds)	Emission Factor (gas number) (Pounds)	MDE Screening Level 1-HOUR (ug/m3)	MDE Screening Level 8-HOUR (ug/m3)	MDE Annual Level (ug/m3)	Screen3 Concentration 1-hour (ug/m3)	Screen3 Concentration 8-hour (ug/m3)	Screen3 Annual Concentration (ug/m3)	Screen3 Concentration 1-hour as % of MDE Screening Level	Screen3 Concentration 8-hour as % of MDE Screening Level	Screen3 Concentration Annual as % of MDE Screening Level	Screen3 Concentration as % of MDE Screening Level
83329	Acenaphthene	1.11E-07	1.11E-07	2.03E+01	8.00E-02	9.45E-06	3.31E-06	2.59E-07	0.00	0.00	0.00	0.00	0.00
209968	Acenaphthylene	1.22E-07	1.22E-07	2.46E+01	2.00E+01	1.04E-05	3.64E-06	2.85E-07	0.00	0.00	0.00	0.00	0.00
120127	Anthracene	3.24E-07	3.24E-07	2.00E+01	2.00E+00	2.76E-05	9.66E-06	7.58E-07	0.00	0.00	0.00	0.00	0.00
7440360	Antimony	< 3.020E-5	3.02E-05	5.00E+00	1.00E-01	2.57E-03	9.00E-04	7.05E-05	0.02	0.02	0.89	34.99	0.01
7440382	Arsenic	< 3.000E-5	3.00E-05	1.00E-01	2.00E-04	2.04E-03	7.15E-04	5.60E-05	0.01	0.01	0.01	0.01	0.01
7440393	Barium	2.40E-05	2.40E-05	5.00E+00	5.00E+00	2.04E-03	7.15E-04	5.60E-05	0.01	0.01	0.01	0.01	0.01
56553	Benzo (a) anthracene	< 9.760E-9	9.76E-09	2.00E-01	2.00E+01	8.31E-07	2.91E-07	2.28E-08	0.00	0.00	0.00	0.00	0.00
50328	Benzo (a) pyrene	< 2.910E-8	2.91E-08	2.00E-01	2.00E+01	2.48E-06	8.67E-07	6.79E-08	0.00	0.00	0.00	0.00	0.00
205992	Benzo (b) fluoranthene	< 1.590E-8	1.59E-08	2.00E-01	2.00E+01	1.35E-06	4.74E-07	3.71E-08	0.00	0.00	0.00	0.00	0.00
191242	Benzo (g,h,i) perylene	< 2.910E-8	2.91E-08	2.00E-01	2.00E+01	2.48E-06	8.67E-07	6.79E-08	0.00	0.00	0.00	0.00	0.00
207099	Benzo (k) fluoranthene	< 1.420E-8	1.42E-08	2.00E-01	2.00E+01	1.21E-06	4.23E-07	3.31E-08	0.00	0.00	0.00	0.00	0.00
7440417	Beryllium	1.37E-06	1.37E-06	5.00E-04	4.00E-04	1.17E-04	4.08E-05	3.20E-06	8.17	8.17	0.80	0.80	8.17
7440439	Cadmium	1.11E-05	1.11E-05	2.00E-02	6.00E-04	9.45E-04	3.31E-04	2.59E-05	1.65	1.65	4.32	4.32	1.65
7440473	Chromium	2.99E-05	2.99E-05	5.00E+00	5.00E+00	2.55E-03	8.91E-04	6.98E-05	0.02	0.02	0.02	0.02	0.02
18540298	Chromium (VI)	1.35E-05	1.35E-05	1.00E-01	8.00E-05	4.02E-04	1.51E-04	3.15E-05	0.40	0.40	39.37	39.37	0.40
218019	Chrysene	< 5.400E-8	5.40E-08	2.00E-01	2.00E+01	4.60E-06	1.61E-06	1.28E-07	0.03	0.03	0.03	0.03	0.03
7440484	Cobalt	< 1.750E-5	1.75E-05	2.00E-01	2.00E+00	1.49E-04	5.22E-05	4.08E-06	0.03	0.03	0.03	0.03	0.03
7440508	Copper	2.74E-05	1.27E-08	2.00E+00	2.00E+00	2.33E-03	8.17E-04	6.39E-05	0.04	0.04	0.04	0.04	0.04
53703	Dibenz(a,h) anthracene	< 1.270E-8	1.27E-08	2.00E-01	2.00E+01	1.08E-06	3.78E-07	2.98E-08	0.00	0.00	0.00	0.00	0.00
206440	Fluoranthene	2.05E-07	2.05E-07	8.20E+01	2.00E+01	1.75E-05	6.11E-06	4.78E-07	0.00	0.00	0.00	0.00	0.00
86737	Fluorene	4.17E-07	4.17E-07	2.00E+01	2.00E+01	3.55E-05	1.24E-05	9.73E-07	0.00	0.00	0.00	0.00	0.00
7647010	Hydrogen chloride	7.20E-02	7.20E-02	2.98E+01	1.65E+02	6.13E+00	2.15E+00	1.68E-01	20.55	20.55	24.00	24.00	20.55
7664393	Hydrogen fluoride	6.55E-04	6.55E-04	1.64E+01	4.09E+00	5.58E-02	1.95E-02	1.53E-03	0.34	0.34	0.34	0.34	0.34
193395	Indeno(1,2,3-cd)pyrene	< 1.540E-8	1.54E-08	2.00E-01	2.00E+01	1.31E-06	4.59E-07	3.59E-08	0.00	0.00	0.00	0.00	0.00
7439921	Lead	6.62E-05	6.62E-05	5.00E-01	5.00E-01	5.64E-03	1.97E-03	1.54E-04	0.39	0.39	0.39	0.39	0.39
7439976	Mercury	3.29E-03	3.29E-03	1.00E-01	1.00E-01	9.81E-02	7.68E-03	7.68E-03	93.38	93.38	93.38	93.38	93.38
7439987	Molybdenum	< 1.670E-5	1.67E-05	5.00E+00	5.00E+00	1.42E-03	4.98E-04	3.90E-05	0.01	0.01	0.01	0.01	0.01
7440020	Nickel	3.82E-05	3.82E-05	1.00E+00	1.00E+00	3.25E-03	1.14E-03	8.91E-05	0.11	0.11	0.11	0.11	0.11
85018	Phenanthrene	2.29E-06	2.29E-06	9.80E+00	2.00E+01	1.95E-04	6.82E-05	5.34E-06	0.00	0.00	0.00	0.00	0.00
129000	Pyrene	1.62E-07	1.62E-07	2.00E+01	2.00E+01	4.83E-06	3.78E-07	3.78E-07	0.00	0.00	0.00	0.00	0.00
7782492	Selenium	< 4.360E-5	4.36E-05	2.00E+00	2.00E+00	3.71E-03	1.30E-03	1.02E-04	0.06	0.06	0.06	0.06	0.06
7440224	Silver	7.30E-08	7.30E-08	1.00E-01	1.00E-01	6.22E-04	2.18E-04	1.70E-05	0.22	0.22	0.22	0.22	0.22
7440280	Thallium	< 8.520E-5	8.52E-05	2.00E-01	5.00E-01	7.25E-03	2.54E-03	1.99E-04	1.27	1.27	1.27	1.27	1.27
7440622	Vanadium	5.79E-05	5.79E-05	5.00E-01	5.00E-01	4.93E-03	1.73E-03	1.35E-04	0.35	0.35	0.35	0.35	0.35
7440666	Zinc	3.53E-04	3.53E-04	1.00E+03	5.00E+02	3.01E-02	1.05E-02	8.24E-04	0.00	0.00	0.00	0.00	0.00
	PM, filterable	8.50E-02	8.50E-02	5.00E+00	5.00E+00	7.24E+00	2.53E+00	1.98E-01	0.00	0.00	0.00	0.00	0.00
	PM, filterable	3.76E-06	3.76E-06	8.20E-04	3.00E-08	3.20E-04	1.12E-04	8.77E-06	0.01	0.01	0.01	0.01	0.01
1746016	Total Dioxins & Furans - TEQ balanced	1.41E-09	1.41E-09	8.20E-04	3.00E-08	1.20E-07	4.19E-08	3.28E-09	0.01	0.01	0.01	0.01	0.01

# PLOT PLAN

SHOW ALL SURROUNDING BUILDINGS AND ROADS WITHIN 250 FEET OF THE EQUIPMENT COVERED BY THIS APPLICATION.



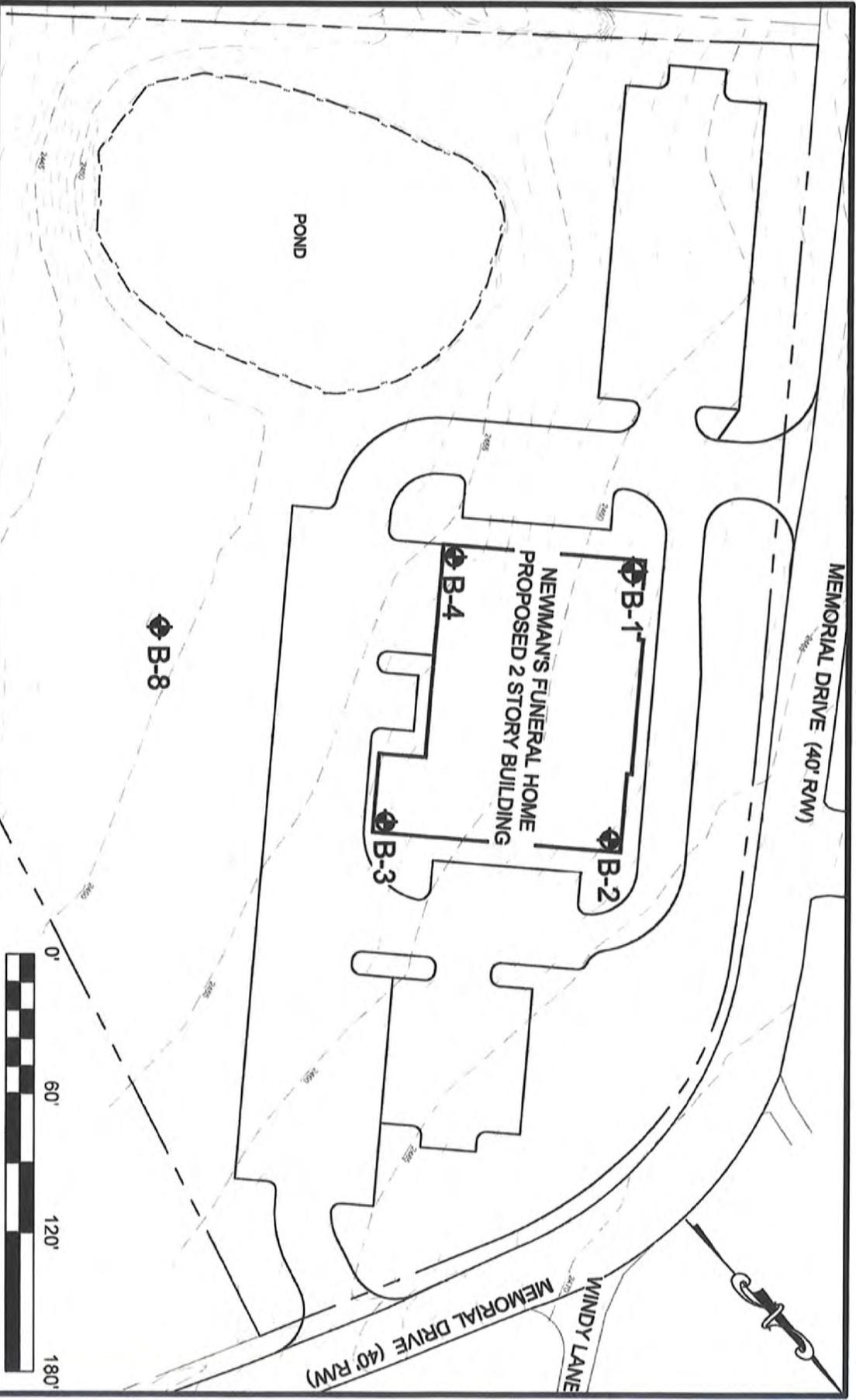
### INSTRUCTIONS

1. INDICATE LOCATION AND TYPE OF BUILDING BY THE USE OF SMALL NUMBERED CIRCLES WITH THE DESCRIPTION BELOW.
2. SHOW ROADS AS LINES REPRESENTING THE ROAD EDGES. INDICATE STREET NAMES AND HIGHWAY NUMBERS.
3. SHOW WOODED OR CLEARED AREA BY APPROXIMATE BOUNDARY LINES AND THE WORDS "WOODS," "CLEARED," "CORNFIELD," ETC.

#4 wooded area

STRUCTURE	DESCRIPTION
(1)	Funeral Home
(2)	Memorial Drive
(3)	Cleared land
(4)	Wooded area
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	

Note: Memorial Drive is a 40' R/W

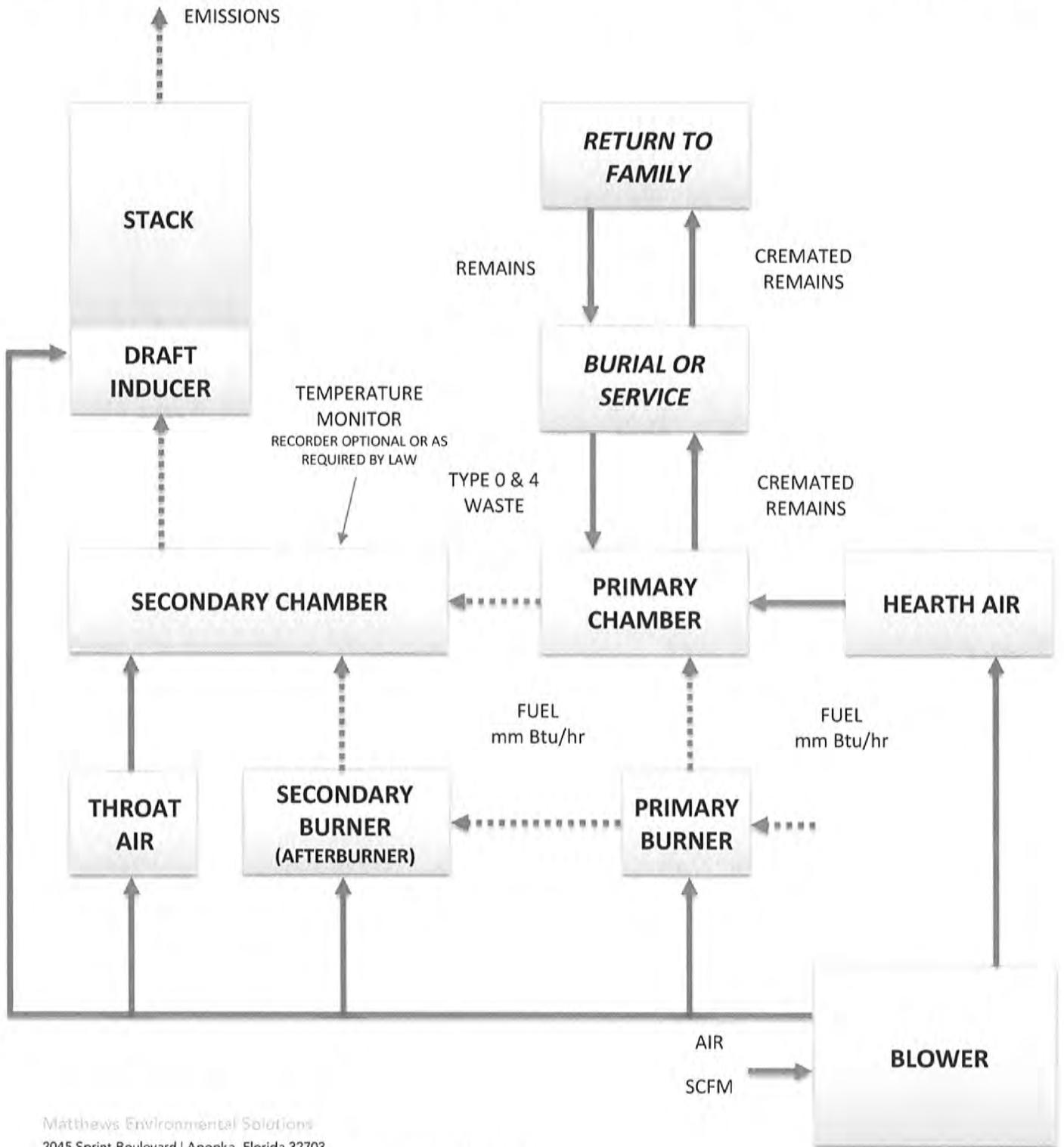


CADD FILE:  
 FIGURE 1 & 2 DWG  
 DRAWN BY: NTM  
 CHECKED BY: L.JH  
 DATE: 05-03-2010  
 SCALE: 1" = 60'

NEWMAN'S FUNERAL HOME  
 OAKLAND, MARYLAND  
 BORING LOCATION PLAN  
 JOB NO: 01-10-0125

FIGURE: 2  
**TRIAD**  
 TRIAD ENGINEERING, INC.  
 www.triadeng.com  
 219 HARTMAN RUN ROAD  
 MORGANTOWN, WV

# Cremator Process Flow Diagram



Matthews Environmental Solutions  
2045 Sprint Boulevard | Apopka, Florida 32703  
O: 407-886-5533 | F: 407-886-5990 | www.matthewsenvironmentalsolutions.com

## SPECIFICATIONS- Model Power-Pak I

1. Equipment Type..... Model Power-Pak I
  - A. Model No. .... IE43-PPI
  - B. Underwriters Laboratories Listing and File No. .. 87E8; MH14647
  
2. Dimensions
  - A. Footprint ..... 12' – 6 ½" x 5' – 3" (3.82 m x 1.60 m)
  - B. Maximum Length ..... 14' – 8" (4.47 m)
  - C. Maximum Width ..... 6' -5" (1.96 m)
  - D. Maximum Height ..... 8' - 4" (2.54 m)
  - E. Chamber Loading Opening ..... 25 ¾" H x 39 ½" W (654 mm x 1003 mm)
  
3. Weight ..... 23,400 lbs. (10,614 kg)
  
4. Utility/Air Requirements
  - A. Gross Gas Input, Natural or LP Gas..... 2,700,000 BTU/hr. (2,848,651 kJ/h)  
3,000,000 BTU/hr. (3,165,168 kJ/h) if operating  
temperature is greater than 1,600° F (871° C)
    - Running Gas Pressure, Natural Gas ..... 11 inches (279.4 mm) water column or greater
    - Running Gas Pressure, LP Gas ..... 11 inches (279.4 mm) water column or greater
  - B. Electrical Supply..... 230 volt, 3Ø or 1Ø, 50/60 hz (other available)
  - C. Air Supply..... 2,500 cfm (70.8 standard m<sup>3</sup>/min)
  
5. Incineration Capacity ..... 150 lbs./hr. (68 kg/h)
  
6. Typical Loading Capacity of Waste Types..... 750 lbs. (340.2 kg)
  
7. Construction and Safety Standards..... Incineration Institute of America, Underwriters  
Laboratories, Canadian Standards Association
  
8. Steel Structure Construction
  - A. Frame ..... 2" (51 mm) square tubing
  - B. Front/Rear Plates ..... 3/8" (9.5 mm) plate
  - C. Floor Plates ..... 3/16" (5 mm) plate
  - D. Outer Side Casing..... 12 gauge (3 mm) plate
  - E. Inner Side Casing..... 12 gauge (3 mm) plate
  
9. Stack Construction
  - A. Inner Wall..... 3" (76 mm) castable
  - B. Outer Wall ..... 12 gauge (3 mm) stainless steel sheet with  
welded seams. (unlined stack available)
  
10. Draft Nozzle Construction ..... Schedule 40 type 316 s.s. pipe, welded  
connections
  
11. Main Chamber Door Construction
  - A. Steel Shell..... 3/16" (5 mm) steel, welded with reinforcement
  - B. Outer Refractory..... 1" (25 mm) insulating block
  - C. Inner Refractory ..... 4½" (110 mm) insulating firebrick

SPECIFICATIONS- Model Power-Pak I

- 12. Primary Chamber Wall Construction
  - A. Outer Casing Wall ..... 12 gauge (3 mm) sheet
  - B. Inner Frame/Air Compartment ..... 2" (51 mm) air compartment
  - C. Inner Casing Wall ..... 12 gauge (3 mm) sheet
  - D. Outer Refractory Wall ..... 5" (127 mm) insulating block
  - E. Inner Refractory Wall ..... 4½" (114 mm) firebrick
  
- 13. Secondary Chamber Wall Construction
  - A. Outer Casing Wall ..... 12 gauge (3 mm) sheet
  - B. Inner Frame/Air Compartment ..... 2" (51 mm) air compartment
  - C. Inner Casing Wall ..... 12 gauge (3 mm) sheet
  - D. Outer Refractory Wall ..... 6" (152 mm) insulating block
  - E. Inner Refractory Wall ..... 4½" (114 mm) firebrick
  
- 14. Refractory Temperature Ratings
  - A. Standard Firebrick ..... 3,100° F. (1704° C)
  - B. Insulating Firebrick ..... 2,600° F. (1427° C)
  - C. Castable Refractory (Hearth) ..... 2,550° F. (1399° C)
  - D. Castable Refractory ..... 2,550° F. (1399° C)
  - E. Insulating Block ..... 1,900° F. (1038° C)
  - F. Bonding Mortar ..... 3,200° F. (1760° C)
  
- 15. Chamber Volumes (not including external flues, stacks or chimneys)
  - A. Primary Chamber ..... 64 cubic feet (1.8 m<sup>3</sup>)
  - B. Secondary Chamber ..... 74 cubic feet (2.1 m<sup>3</sup>)
  
- 16. Emission Control Features
  - A. Secondary Chamber with Afterburner ..... Included
  - B. Opacity Monitor and Controller with Visual and Audible Alarms ..... Included
  - C. Auxiliary Air Control System ..... Included
  - D. Microprocessor Temperature Control System .... Included
  
- 17. Operating Temperatures
  - A. Primary Chamber ..... 32° F. - 1,800° F. (0° C - 982° C)
  - B. Secondary Chamber ..... 1,400° F. - 1,800° F. (760° C - 982° C) as required
  
- 18. Secondary Chamber Retention Time ..... > 1 second
  
- 19. Ash Removal ..... Door functions as a heat shield. Sweep out beneath front door into hopper that fills collection pan.

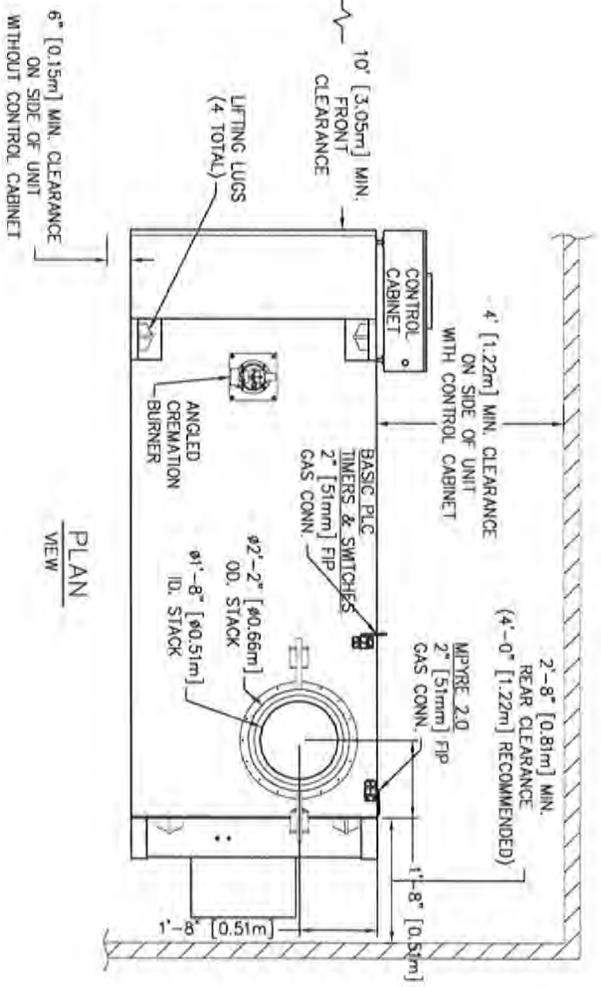
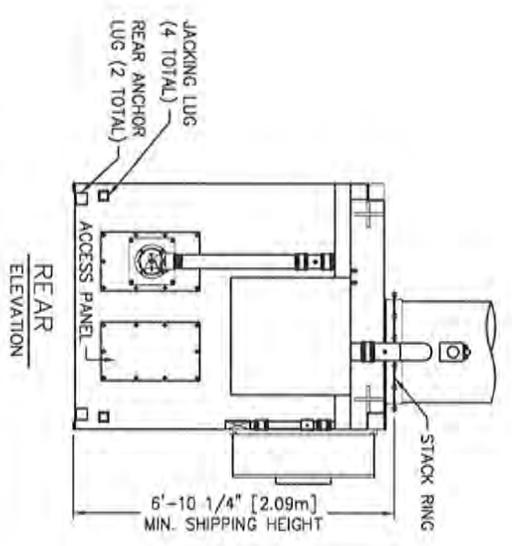
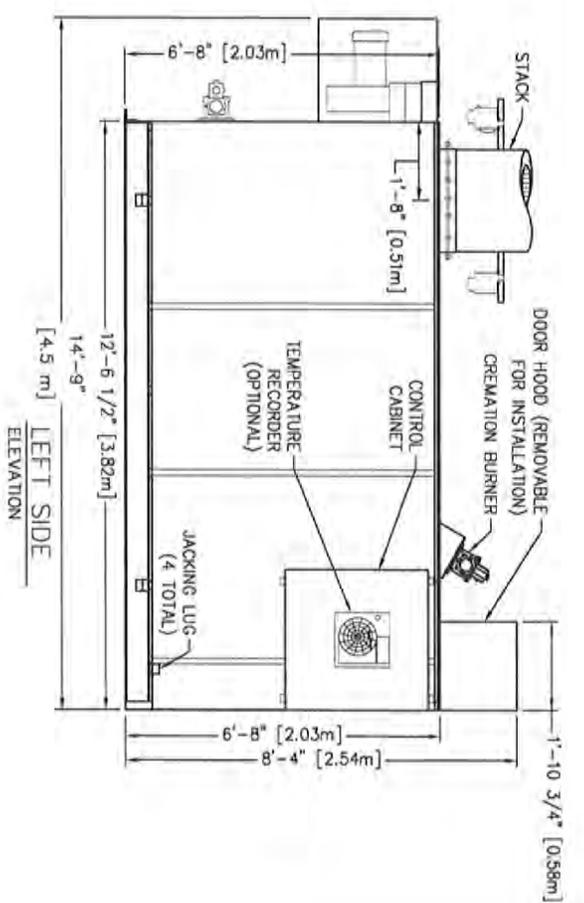
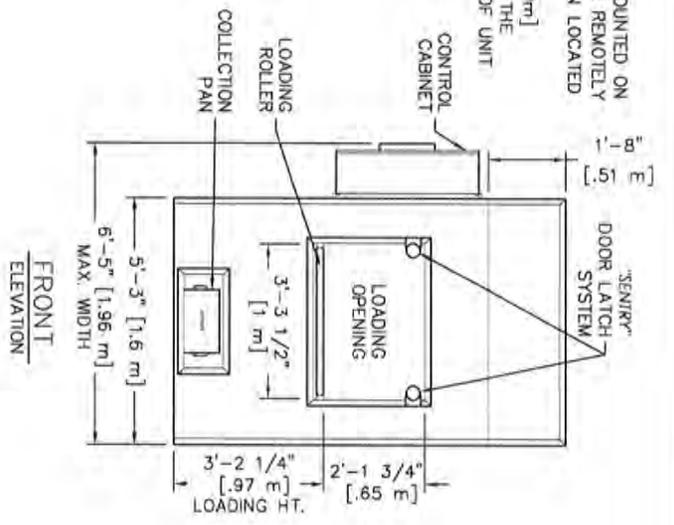
SPECIFICATIONS- Model Power-Pak I

- 20. Safety Interlocks
  - A. High Gas Pressure ..... Optional
  - B. Low Gas Pressure..... Optional
  - C. Blower Air Pressure ..... Included
  - D. Door Position ..... Included
  - E. Opacity..... Included
  - F. Motor Starter Function..... Included
  - G. Chamber Temperature ..... Included
  - H. Motor Overload ..... Included
  - I. Flame Quality..... Included
  - J. Burner Safe Start ..... Included
  - K. Cremation Burner/Door Interlock ..... Available upon Env. Agency requirements
  
- 21. Burner Description ..... The nozzle mix burners used on this cremation equipment are industrial quality and designed for incinerator use.
  
- 22. Ultraviolet Flame Detection ..... Ultraviolet flame detection has proven to be the most reliable means of flame safety. The system is completely sealed in a quartz capsule to eliminate problems, caused by moisture and dust created in the cremation process, which effect flame rod detectors.
  
- 23. Operating Panel Indicators
  - A. Safe Run ..... Included
  - B. Door Closed ..... Included
  - C. Pollution Alarm ..... Included
  - D. Afterburner On (Secondary Burner)..... Included
  - E. Afterburner (Secondary Burner) Reset ..... Included
  - F. Cremation Burner Reset..... Included
  - G. High Fire Cremation Burner ..... Included
  - H. Low Fire Cremation Burner ..... Included
  - I. Hearth Air..... Included
  - J. Throat Air Off ..... Included
  
- 24. Automatic Timer Functions
  - A. Master Cycle ..... Included
  - B. Hearth Air..... Included
  - C. Throat Air ..... Included
  - D. Pollution Monitoring..... Included
  - E. Cremation Burner Hi - Low ..... Included
  - F. Cool Down ..... Included
  
- 25. Exterior Finish
  - A. Primer ..... 2 coats rust inhibiting
  - B. Finish ..... 2 coats textured finish

SPECIFICATIONS- Model Power-Pak I

- 26. Start-Up and Training..... Startup of cremation equipment and training of operators to properly operate and maintain the equipment is performed on-site under actual operating conditions. Included is a comprehensive owner's manual, with details on the equipment, its components and proper operation.
  
- 27. Environmental Submittals ..... Complete technical portion of state environmental permits. Engineering calculations, technical data, existing stack test results and equipment blueprints provided.

- NOTES:**
- 1) CONTROL CABINET CAN BE MOUNTED ON THE LEFT OR RIGHT SIDE, OR REMOVELY
  - 2) MAIN ELECTRICAL CONNECTION LOCATED IN CONTROL CABINET
  - 3) CHAMBER WIDTH IS 39" [0.99m]
  - 4) STACK CAN BE LOCATED ON THE BACK LEFT OR BACK RIGHT OF UNIT



**Matthews**  
 ENVIRONMENTAL SOLUTIONS

2045 Sprint Boulevard  
 Apopka, Florida 32703  
 USA

**POWER-PAK I**

**PLAN & ELEVATIONS INCL: CLEARANCES, REQUIREMENTS & RECOMMENDATIONS**

DRAWN BY:	JG	DATE:	03.20.2014	REVISION:	
APPROVED BY:		DATE:	10.21.2015	WHISPER SHIELD ADDED	
SCALE:	1/4" = 1'-0"	SHEET:	OF:	WHISPER SHIELD LENGTH +1"	
DWG FILE:			03.15.2017	REMOVE MAIN ELEC FROM TOP OF UNIT	
DWG NUMBER:			07.21.2017	CHANGED MIN. FRONT CLEAR. TO 10"	
			09.19.2017		

THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MATTHEWS ENVIRONMENTAL SOLUTIONS. UNLESS OTHERWISE SPECIFIED IN WRITING, MATTHEWS ENVIRONMENTAL SOLUTIONS IS THE OWNER OF THIS DRAWING AND THE INFORMATION CONTAINED HEREIN. THIS DRAWING AND THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL, PROPRIETARY, AND MAY NOT BE REPRODUCED OR DISCLOSED TO THIRD PARTIES WITHOUT THE EXPRESS WRITTEN CONSENT OF MATTHEWS ENVIRONMENTAL SOLUTIONS. IT IS ISSUED FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT TO BE USED FOR ANY PURPOSE, INCLUDING, BUT NOT LIMITED TO, AS A CONSTRUCTION DRAWING OR FOR A REQUEST FOR BID TO A THIRD PARTY. THIS DRAWING IS PROVIDED WITHOUT ANY WARRANTY EXPRESSED OR IMPLIED, ANY USE OF THIS DRAWING WILL BE AT THE RISK AND SOLE RESPONSIBILITY OF THE USER.

**CREMATOR CLEARANCES**

RECOMMENDED	MINIMUM
TOP: 2 FEET [610 mm]	6 INCHES [152 mm]
CABINET SIDE: 4 FEET [1,22 m]	4 FEET [1,22 m]
OTHER SIDE: 2 FEET [610 mm]	6 INCHES [152 mm]
FRONT: 10+ FEET [3.05+ m]	10 FEET [3.05 m]
REAR: 4 FEET [1,22 m]	32 INCHES [812 mm]
STACK: 9 INCHES [229 mm]	6 INCHES [152 mm]

- FOR CLEARANCES OTHER THAN THOSE SHOWN, OR FOR SPECIAL REQUIREMENTS, CONSULT YOUR MES REP.
- FROM HIGHEST POINT ON UNIT.
- CONTROL CABINET MOUNTS ON UNITS LEFT OR RIGHT SIDES, OR REMOTELY. (SEE PLAN VIEW, SHEET 1).
- REAR OF UNIT REFERS TO THE "BACK PLATE", RATHER THAN THE BACK OF THE "WHISPER SHIELD". (SEE PLAN VIEW, SHEET 1).

**CREMATOR REQUIREMENTS**

FUEL: A PRESSURE REGULATOR ADJUSTABLE TO 11" [279 mm] W.C. FOR NATURAL GAS, OR 11" [279 mm] W.C. FOR LP GAS.

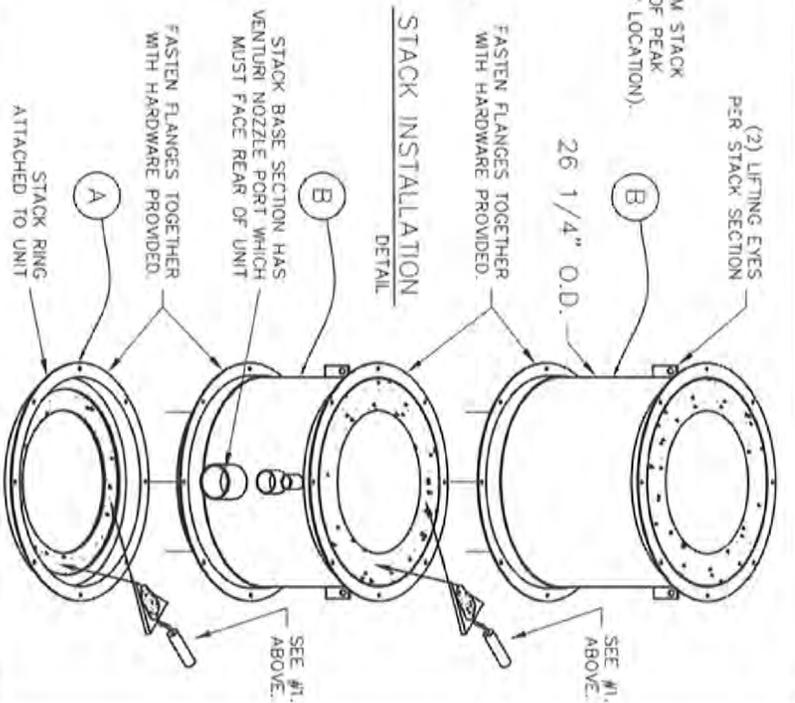
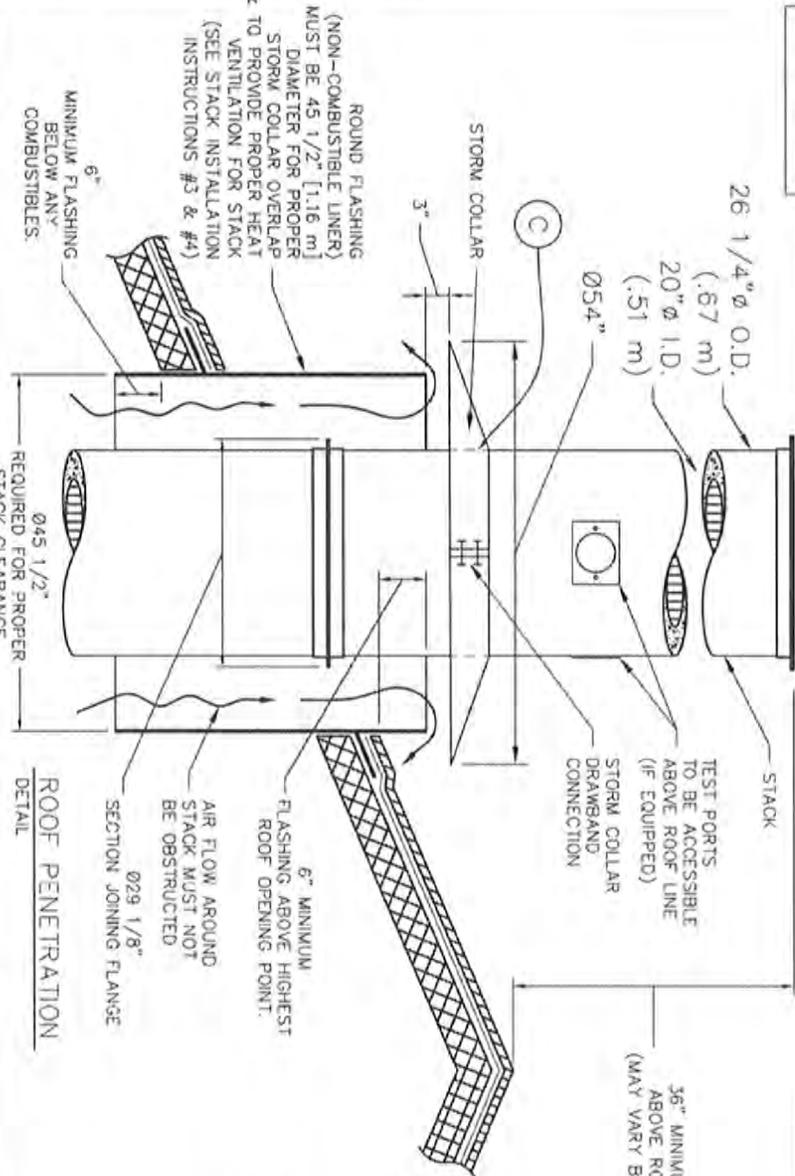
CAPACITY: RANGES FROM 2.0 TO 3.0 MILLION BTU/HR [2.1 TO 3.1 MILLION KILOJouLES/HR] DEPENDING UPON AMOUNT OF BURNERS.

ELECTRICAL: 230 VOLT, 3 $\phi$ , (40A BREAKER) AND 115V (10A BREAKER), OR 230 VOLT, 1 $\phi$ , (70A BREAKER) AND 115V (10A BREAKER) 50/60 HERTZ

AIR: LOUVER NEAR THE REAR OF THE UNIT CAPABLE OF PASSING 2,500 CU FT/MIN [70.8 CU M/MIN] OF FREE AIR (36" X 36") [914 mm X 914 mm]

**STACK INSTALLATION INSTRUCTIONS**

- APPLY A 1/2" THICK MORTAR JOINT TO EXPOSED REFRACTORY SURFACE IN STACK RING. LOWER THE BASE STACK SECTION (B) ONTO STACK RING (A) AND FASTEN WITH HARDWARE PROVIDED (NO MORE THAN (2) STACK SECTIONS SHALL BE LIFTED TOGETHER). REPEAT PROCESS FOR REMAINING STACK SECTIONS. IF SECTIONS OF VARYING LENGTHS ARE SUPPLIED, ASSEMBLE AS TO AVOID FLANGES & LIFTING EYES INTERFERING WITH RAIN COLLAR LOCATION.
- INSTALL STORM COLLAR ON STACK, 3" [72 mm] ABOVE NON-COMBUSTIBLE LINER (FLASHING), ALLOWING FOR PROPER VENTILATION. (SEE DETAIL).
- APPLY A 1/4" [6 mm] BEAD OF HIGH-TEMPERATURE SILICON SEALANT (PROVIDED BY MES) TO THE JOINT BETWEEN THE STORM COLLAR (C) AND THE STACK (B).
- STORM COLLAR IS FURNISHED BY MES. THE NON-COMBUSTIBLE LINER (FLASHING) TO BE PROVIDED BY THE OTHERS.
- IF FIFTY PERCENT OF THE STACK LENGTH IS ABOVE THE ROOF, GUY WIRES MAY BE REQUIRED. CONSULT WITH YOUR MES REP.
- RAIN CAP NOT REQUIRED.



**Matthews**  
ENVIRONMENTAL SOLUTIONS

2045 Sprint Boulevard  
Apopka, Florida 32703  
USA

POWER-PAK 1

STACK DETAILS, CLEARANCES & INSTALLATION INSTRUCTIONS.  
REFRACTORY STACK DETAIL

DRAWN BY:	DATE:	REVISION:
JG	03.14.2014	3
APPROVED BY:	DATE:	12.09.2014
SCALE: 1/2" = 1'-0"	SHEET: OF:	GENERAL MODIFICATIONS 2
DWG FILE:	5	12.23.2014
DWG NUMBER:	\$[GETVAR,??]	GENERAL MODIFICATIONS 3
		CHANGED MIN. FRONT CLEAR. TO 10"

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## Calculation Of Emissions

### Estimated Emission Calculation

Matthews Environmental Solutions  
Crematory Incinerator Model IE43-PPI

Total Incinerator Burn Capacity      150 lb/hr of remains (type 4) and associated containers (type 0)  
 Flue gas flow rate =      1100 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 (SO<sub>2</sub>)

$$\frac{150 \text{ lb/hr X } 2.17 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.163 \text{ lb/hr}$$

$$= 0.304668 \text{ TPY}$$

$$\frac{0.16275 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1100 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{ft}^3 \text{ X } 2.61 \text{ mg/m}^3} = 15.16 \text{ ppmv}$$

#### Nitrogen Oxide (NO<sub>x</sub> - as Nitrogen Dioxide)

$$\frac{150 \text{ lb/hr X } 3.56 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.267 \text{ lb/hr}$$

$$= 0.499824 \text{ TPY}$$

$$\frac{0.267 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1100 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{ft}^3 \text{ X } 1.88 \text{ mg/m}^3} = 34.89 \text{ ppmv}$$

#### Hydrocarbons (TOC/VOC - methane)

$$\frac{150 \text{ lb/hr X } 2.99\text{E}-01 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.022425 \text{ lb/hr}$$

$$= 0.04198 \text{ TPY}$$

$$\frac{0.022425 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1100 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{ft}^3 \text{ X } 0.65 \text{ mg/m}^3} = 8.39 \text{ ppmv}$$

#### Particulates (PM & PM<sub>10</sub>)

$$\frac{150 \text{ lb/hr X } 4.67 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.35025 \text{ lb/hr}$$

$$= 0.655668 \text{ TPY}$$

$$\frac{0.35025 \text{ lb/hr X } 7.00\text{E}+03 \text{ gr/lb X}}{1100 \text{ dscfm X } 60 \text{ min/hr}} = 0.04 \text{ gr/dscf}$$

#### Carbon Monoxide (CO)

$$\frac{150 \text{ lb/hr X } 2.95 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} = 0.22125 \text{ lb/hr}$$

$$= 0.41418 \text{ TPY}$$

$$\frac{0.22125 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1100 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{ft}^3 \text{ X } 1.14 \text{ mg/m}^3} = 47.68 \text{ ppmv}$$

**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.

**CREMATOR MASS BALANCE**  
**Matthews Environmental Solutions**  
**PPI**

THESE CALCULATIONS HAVE BEEN PREPARED TO EVALUATE THE COMBUSTION PROCESS IN THIS UNIT.

THE INCINERATOR INSTITUTE OF AMERICA HAS PUBLISHED THE FOLLOWING SPECIFICATIONS COVERING AVERAGE WASTES.

WASTE TYPE	TYPE 0	TYPE 4
BTU PER POUND	8500	1000
POUND ASH PER POUND WASTE	0.05	0.05
POUND MOISTURE PER POUND WASTE	0.1	0.85
POUND COMBUSTIBLES PER POUND WASTE	0.85	0.1
HOURLY CONSUMPTION OF WASTE (LBS)	10	140

**1. MASS OF PRODUCTS OF COMBUSTION FROM CONTAINER**

**A. COMBUSTION AIR**

$$\frac{8500 \text{ BTU/LB}}{100 \text{ BTU/CF OF AIR}^*} \times 0.075 \text{ LB/CF OF AIR} = 6.38 \text{ LB/LB BURNED}$$

**B. COMBUSTIBLES AND WATER VAPOR**

FROM CHART ABOVE = 0.95 LB/LB BURNED

**C. TOTAL FLUE PRODUCT MASS PER LB BURNED**

= 7.33 LB/LB BURNED

**2. MASS OF PRODUCTS OF COMBUSTION FROM BODY**

**A. COMBUSTION AIR**

$$\frac{1000 \text{ BTU/LB}}{100 \text{ BTU/CF OF AIR}^*} \times 0.075 \text{ LB/CF OF AIR} = 0.75 \text{ LB/LB BURNED}$$

**B. COMBUSTIBLES AND WATER VAPOR**

FROM CHART ABOVE = 0.95 LB/LB BURNED

**C. TOTAL FLUE PRODUCT MASS PER LB BURNED**

= 1.70 LB/LB BURNED

SPECIFICATIONS	
PRIMARY BURNER FUEL CONSUMPTION (MMBTU/HR)	1
SECONDARY BURNER FUEL CONSUMPTION (MMBTU/HR)	1.2
ADDITIONAL SECONDARY AIR SUPPLIED (CFM)	200
SEC. CHAMBER OPERATING TEMPERATURE (°F)	1600
SECONDARY CHAMBER VOLUME (CU. FT)	74
SEC. CHAMB. CROSS-SECTIONAL AREA (SQ. FT)	2.44
FLAME PORT AREA (SQ. FT)	2.95
MIXING BAFFLES AREA (SQ. FT)	1.36

\*AIR AT STANDARD CONDITIONS

**3. TOTAL FLUE PRODUCTS**

**A. MAXIMUM PRIMARY BURNER GAS USAGE**

$$1000000 \text{ BTU/HR} \times 4.5\text{E-}05 \text{ LBS/BTU} = 45 \text{ LBS/HR}$$

**B. COMBUSTION AIR FOR PRIMARY BURNER**

$$\frac{1000000 \text{ BTU/HR}}{100 \text{ BTU/CF AIR}} \times 1 \text{ Burner} \times 0.075 \text{ LB/CF AIR} = 750 \text{ LBS/HR}$$

**C. MAXIMUM SECONDARY BURNER GAS USAGE**

$$1200000 \text{ BTU/HR} \times 4.5\text{E-}05 \text{ LBS/BTU} = 54 \text{ LBS/HOUR}$$

**D. COMBUSTION AIR FOR SECONDARY BURNER**

$$\frac{1200000 \text{ BTU/HR}}{100 \text{ BTU/CF AIR}} \times \frac{1}{\text{Burner}} \times 0.075 \text{ LB/CF AIR} = 900 \text{ LBS/HOUR}$$

**E. PRODUCTS FROM TYPE 0 WASTE (CONTAINER)**

$$7.33 \text{ LBS/LB BURNED} \times 10 \text{ LB/HR BURN RATE} = 73 \text{ LBS/HOUR}$$

**F. PRODUCTS FROM TYPE 4 WASTE (TISSUE)**

$$1.70 \text{ LBS/LB WASTE} \times 140 \text{ LB/HR BURN RATE} = 238 \text{ LBS/HOUR}$$

**G. ADDITIONAL SECONDARY CHAMBER COMBUSTION AIR (THROAT AIR)**

$$12000 \text{ CF/HR} \times 0.075 \text{ LB/CF AIR} = 900 \text{ LBS/HOUR}$$

**H. TOTAL FLUE PRODUCTS**

$$= \underline{\underline{2960 \text{ LBS/HOUR}}}$$

**2. VELOCITY AND TIME CALCULATIONS**

**A. SCFM CALCULATION**

(PRODUCTS ASSUMED TO HAVE DENSITY CLOSE TO AIR)

$$2960 \text{ LBS/HR} \times \frac{13.35 \text{ STD. CU. FT/LB}}{60 \text{ MIN/HR}} = 659 \text{ SCFM}$$

**B. TOTAL PRODUCTS ACFM**

@ 1800 °F

$$\frac{2060 \text{ °RANKINE}}{530 \text{ °RANKINE}} \times 658.7 \text{ CFM} = 2560 \text{ ACFM}$$

**C. RETENTION TIME**

$$\frac{74 \text{ CU. FT}}{2560 \text{ ACFM}} \times \frac{60 \text{ SECONDS}}{1 \text{ MINUTE}} = 1.73 \text{ SECONDS}$$



Family Owned Since 1955  
**NEWMAN**  
 Funeral Homes, P.A.

179 Miller St., P.O. Box 275, Grantsville, MD 21536 301.895.5188  
 1100 Memorial Dr., P.O. Box 386, Oakland, MD 21550 301.533.1960  
 26722 Garrett Hwy., Accident, MD 21520 301.746.8700  
 943 Second Ave., Friendsville, MD 21531 301.746.5800  
 Toll Free 800.427.5622

**Fax Cover & E-Mail Sheet**

Fax # \_\_\_\_\_

Date 06/07/2021

Email: Dennis.Borie@maryland.gov

To: Dennis Borie

Attn: \_\_\_\_\_

Subject: Zoning proof for Newman Funeral Homes, PA

Sender: DONALD LYNN NEWMAN

Number of Pages: 2 Cover Sheet + 1 Total: 3

If all the pages are not received, Please call 301-895-5188 - 301-533-1960 - 800-427-5622.

Our Fax Number is: 301-895-5255 or for Oakland 301-533-1961

Other Comments:

Hello Mr. Borie,  
I am emailing the zoning letter + use + occupancy  
permit for your OAKLAND funeral home.  
Thank you

Donald Lynn Newman

MAYOR  
PEGGY JAMISON

COUNCIL MEMBERS  
JAY MOYER,  
Council President  
JACK RILEY  
SHERWIN TEAGARDEN  
KATHY SHAFFER  
WAYNE MOWBRAY  
TERRY HELBIG

MAYOR AND TOWN COUNCIL  
OAKLAND CITY HALL  
15 SOUTH THIRD STREET  
OAKLAND, MARYLAND 21550  
301-334-2691  
FAX 301-334-4401  
townfoak@gmail.com

EXECUTIVE COORDINATOR  
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WATER SUPERINTENDENT  
DEAN B. KEEFER  
WASTEWATER SUPERINTENDENT  
JEROME J. MOATS  
DIRECTOR OF GENERAL SERVICES  
BILL G. ASHBY

March 5, 2019

Newman Funeral Homes, P.A.  
1100 Memorial Drive  
P.O. Box 386  
Oakland, MD 21550

RE: Zoning Classification RIP  
Newman Funeral Homes

Dear Mr. Newman:

The zoning classification for the area along Memorial Drive where the Newman Funeral Home building is located is Residential, Institutional, Professional (RIP). This letter shall serve as verification that the Newman Funeral Home, located at 1100 Memorial Drive, in Oakland, is a permitted use in the Residential, Institutional, Professional (RIP) Zoning Classification and is in compliance with zoning regulations.

Thank you for your attention to this correspondence. Please feel free to contact me at Oakland City Hall, 301-334-2691, should you have any questions regarding this correspondence.

Sincerely,



Peggy Jamison  
Mayor of Oakland

PJ/gme

# Use and Occupancy Permit

Garrett County Permits and Inspections  
2008 Maryland Highway Mt. Lake Park, Md 21550  
Phone 301-334-7470 Fax 301-334-7469

Permit Number: 11-33

Applicant Newman Funeral Home Phone (301) 895-5188  
Address P. O. Box 275 Grantsville MD 21536-  
Project Location 1100 Memorial Drive  
Tax Map 78 Parcel 708 Lot  
Type or Use Commercial-Business Ser Contractor Callas Contractors

## Use and Occupancy Approval has been issued by the following agencies.

Garrett County Health Department	<u>N/A</u>
Garrett County Roads Department	<u>N/A</u>
Garrett County Dept. of Public Utilities	<u>N/A</u>
Maryland State Highway	<u>N/A</u>
Maryland State Fire Marsbal	<u>10/1/2013</u> <u>JR</u>
Zoning Approval 20110001	<u>8/28/2013</u> <u>WJD</u>
Stormwater Management Approval	<u>9/5/2013</u> <u>RJB</u>
Electrical Inspections Completed	<u>9/25/2013</u> <u>CB</u>
Plumbing Inspections Completed	<u>8/14/2013</u> <u>CBF</u>
Building Inspections Completed	<u>9/30/2013</u> <u>PEG</u>

Occupancy Type Temporary Date Issued 10/1/2013

Code Official Signature: *William E. A. Kuffel*

Comments Temporary U&O until the elevator has been inspected and the roof over the 2 side doors are built.  
Ed

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

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

**SUPPLEMENT TO  
DOCKET #09-21**

COMPANY: Newman Funeral Home, P.A.  
LOCATION: 1100 Memorial Drive, Oakland, MD. 21550  
APPLICATION: Installation of one (1) human crematory

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Tentative Determination, Public Hearing, and Opportunity to Submit Written Comments
2	Fact Sheet and Tentative Determination
3	Draft Permit to Construct and Conditions
4	Supplemental Information References List
5	Privilege Log – Not Applicable

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

**NOTICE OF TENTATIVE DETERMINATION, PUBLIC HEARING, AND  
OPPORTUNITY TO SUBMIT WRITTEN COMMENTS**

**FIRST NOTICE**

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of an application for a Permit to Construct submitted by Newman Funeral Homes, P.A. on May 6, 2021, for the installation of one (1) human crematory. The proposed installation will be located at 1100 Memorial Drive, Oakland, MD 21550.

The issuance of the Permit-to-Construct for this facility will be the subject of a Public Hearing to be held on Thursday, June 2, 2022 at 5:00 PM at Newman Funeral Homes, P.A. located at 1100 Memorial Drive, Oakland, MD 21550.

Pursuant to Section 1-604, of the Environment Article, Annotated Code of Maryland, the Department has made a tentative determination that the Permit-to-Construct can be issued. A final determination on the issuance of the permit will be made after review of all pertinent information presented at the virtual and in-person public hearings, or received in written comments. Copies of the Department's tentative determination, the application, the draft permit to construct with conditions, and other supporting documents are available for public inspection on the Department's website. Look for Docket #09-21 at the following link:

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

Persons who wish to make a statement concerning this application at the hearing are requested to provide the Department with a copy of their statement. In lieu of oral statements at the hearing, written comments may be submitted at the time of the hearing or to the Department no later than 30 days from the date of this notice or within 5 days after the hearing, whichever is later.

Interested persons may request an extension to the public comment period. The extension request must be submitted in writing and must be received by the Department no later than 30 days from the date of this notice or within 5 days after the hearing, whichever is later. The public comment period may only be extended one time for a 60-day period.

All requests for an extension to the public comment period and all written comments should be directed to the attention of Ms. Shannon Heafey, Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard, Baltimore, Maryland 21230.

The Department will provide an interpreter for deaf and hearing impaired persons provided that a request is made for such service at least five (5) days prior to the hearing.

Further information may be obtained by e-mailing Shannon Heafey at [shannon.heafey@maryland.gov](mailto:shannon.heafey@maryland.gov) or by calling 410-537-4433.

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

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

**FACT SHEET AND TENTATIVE DETERMINATION  
NEWMAN FUNERAL HOMES, P.A.**

**PROPOSED INSTALLATION OF ONE (1) HUMAN CREMATORY**

**I. INTRODUCTION**

The Maryland Department of the Environment (the "Department") received an application from Newman Funeral Homes, P.A. on May 6, 2021 for a Permit to Construct for the installation of one (1) new Matthews IE43-PPI, 150 pounds per hour, human crematory. The proposed installation will be located at 1100 Memorial Drive, Oakland, Maryland 21550.

A notice was placed in The Garrett County Republican Newspaper on September 9, 2021 and September 16, 2021 announcing a scheduled informational meeting to discuss the permit to construct application. The informational meeting was held on September 27, 2021, at 5:00 PM at Newman Funeral Homes, P.A. located at 1100 Memorial Drive, Oakland, MD 21550.

As required by law, all public notices were also provided to elected officials in all State, county, and municipality legislative districts located within a one-mile radius of the facility's property boundary.

The Department has reviewed the application and has made a tentative determination that the proposed facility is expected to comply with all applicable air quality regulations. A public hearing has been scheduled for Thursday, June 2nd at 5:00 p.m. at Newman Funeral Homes, P.A. located at 1100 Memorial Drive, Oakland, MD 21550 to provide interested parties an opportunity to comment on the Department's tentative determination and draft permit conditions, and/or to present other pertinent concerns about the proposed facility. Notices concerning the date, time and location of the public hearing will be published in the legal section of a newspaper with circulation in general area of the proposed facility. Interested parties may also submit written comments.

If the Department does not receive any comments that are adverse to the tentative determination, the tentative determination will automatically become a final determination. If adverse comments are received, the Department will review the comments, and will then make a final determination with regard to issuance or denial of the permit. A notice of final determination will be published in a newspaper of general circulation in the affected area. The final determination may be subject to judicial review pursuant to Section 1-601 of the Environment Article, Annotated Code of Maryland.

## II. CURRENT STATUS AND PROPOSED INSTALLATION

### Proposed Installation

Newman Funeral Homes is proposing to install new 150 pounds per hour, Matthews IE43-PPI, human crematory at their facility at 1100 Memorial Drive, Oakland, Maryland 21550.

The Matthews IE43-PPI, human crematory will be equipped with a secondary combustion chamber capable of meeting at least a 1.0 second retention time and a minimum operating temperature of 1600 °F. The Matthews IE43-PPI, human crematory must be equipped with temperature sensors and monitors to continuously measure and record the temperature of the secondary combustion chamber. Exhaust gases must be vented out of a stack at a height of at least 46 feet from the ground to ensure proper dispersion of exhaust gases.

## III. APPLICABLE REGULATIONS

The proposed installation is subject to all applicable Federal and State air quality control regulations, including, but not limited to the following:

- (a) COMAR 26.11.01.07C, which requires that the Permittee report to the Department occurrences of excess emissions.
- (b) COMAR 26.11.02.13A(1), which requires that the Permittee obtain from the Department, and maintain and renew as required, a valid State permit-to-operate.
- (c) COMAR 26.11.02.19C & D, which require that the Permittee submit to the Department annual certifications of emissions, and that the Permittee maintain sufficient records to support the emissions information presented in the submittals.
- (d) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.
- (e) COMAR 26.11.08.04B, which prohibits visible emissions other than uncombined water.

Exceptions. The requirements do not apply to emissions during start-up, or adjustments or occasional cleaning of control equipment if:

- (1) The visible emissions are not greater than 40 percent opacity; and
- (2) The visible emissions do not occur for more than 6 consecutive

minutes in any 60-minute period.

- (f) COMAR 26.11.08.05A(3), which limits the concentration of particulate matter in any exhaust gases to not more than 0.10 grains per standard cubic foot of dry exhaust gas.
- (g) COMAR 26.11.15.05, which requires that the Permittee implement “Best Available Control Technology for Toxics” (T – BACT) to control emissions of toxic air pollutants.
- (h) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions would unreasonably endanger human health.

#### **IV. GENERAL AIR QUALITY**

The U.S. Environmental Protection Agency (EPA) has established primary and secondary National Ambient Air Quality Standards (NAAQS) for six (6) criteria pollutants, i.e., sulfur dioxide, particulate matter, carbon monoxide, nitrogen dioxide, ozone, and lead. The primary standards were established to protect public health, and the secondary standards were developed to protect against non-health effects such as damage to property and vegetation.

The Department utilizes a statewide air monitoring network, operated in accordance with EPA guidelines, to measure the concentrations of criteria pollutants in Maryland’s ambient air. The measurements are used to project statewide ambient air quality, and currently indicate that Garrett County complies with the NAAQS for sulfur dioxide, particulate matter, carbon monoxide, nitrogen dioxide, ozone, and lead.

With regard to toxic air pollutants (TAPs), screening levels (i.e., acceptable ambient concentrations for toxic air pollutants) are generally established at 1/100 of allowed worker exposure levels (TLVs)<sup>1</sup>. The Department has also developed additional screening levels for carcinogenic compounds. The additional screening levels are established such that continuous exposure to the subject TAP at the screening level for a period of 70 years is expected to cause an increase in lifetime cancer risk of no more than 1 in 100,000.

#### **V. COMPLIANCE DEMONSTRATION AND ANALYSIS**

The proposed installation must comply with all State imposed emissions limitations and screening levels, as well as the NAAQS. The Department has conducted an engineering and air quality review of the application. The emissions were projected based on U.S. EPA-approved emissions factors for crematory operations. The conservative U.S. EPA's SCREEN3 model was also used

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<sup>1</sup> TLVs are threshold limit values (exposure limits) established for toxic materials by the American Conference of Governmental Industrial Hygienists (ACGIH). Some TLVs are established for short-term exposure (TLV – STEL), and some are established for longer-term exposure (TLV – TWA), where TWA is an acronym for time-weight average.

to project the maximum ground level concentrations from the proposed installation, which were then compared to the screening levels and the NAAQS.

- A. Estimated Emissions** - The maximum emissions of criterial pollutants from the proposed installation, including the proposed installation, are listed in Table I.
- B. Compliance with National Ambient Air Quality Standards** - The maximum ground level concentrations for particulate matter, sulfur dioxide, oxides of nitrogen, carbon monoxide, and volatile organic compounds based on the emissions from the proposed installation, are listed in column 2 of Table II. The combined impact of the proposed installation, and the ambient background concentration for each pollutant shown in column 3 of Table II, is less than the NAAQS for each pollutant shown in column 4. Emissions of oxides of nitrogen and volatile organic compounds from the proposed crematory are each less than 1 ton per year, much less than the federal major source threshold of 25 tons per year. Emissions from the proposed crematory will not significantly impact the local ground level ozone concentration.
- C. Compliance with Air Toxics Regulations** – The premises wide toxic air pollutants of concern that would be emitted from this facility are listed in column 1 of Table III. The predicted maximum off-site ambient concentrations of these toxic air pollutants are shown in column 4 of Table III, and in each case the maximum concentration is less than the corresponding screening level for the toxic air pollutant shown in column 3.

## **VI. TENTATIVE DETERMINATION**

Based on the above information, the Department has concluded that the proposed installation will comply with all applicable Federal and State air quality control requirements. In accordance with the Administrative Procedure Act, Department has made a tentative determination to issue the Permit to Construct.

Enclosed with the tentative determination is a copy of the draft Permit to Construct.

**TABLE I  
PROJECTED MAXIMUM EMISSIONS FROM THE PROPOSED INSTALLATION**

POLLUTANT	PROJECTED MAXIMUM EMISSIONS	
	(lbs/day)	(tons/year)
Oxides of Nitrogen (NO <sub>x</sub> ) (includes Nitrogen Dioxide – NO <sub>2</sub> )	5.7	1.0
Carbon Monoxide (CO)	4.8	0.88
Sulfur Dioxide (SO <sub>2</sub> )	1.97	0.36
Total Particulate Matter (PM) (includes PM-10 and PM-2.5)	1.2	0.22
Volatile Organic Compounds (VOC)	2.8	0.52

**TABLE II  
PROJECTED IMPACT OF EMISSIONS OF CRITERIA POLLUTANTS FROM THE  
PROPOSED INSTALLATION ON AMBIENT AIR QUALITY**

POLLUTANTS	MAXIMUM OFF-SITE GROUND LEVEL CONCENTRATIONS CAUSED BY EMISSIONS FROM PROPOSED PROCESS (µg/m <sup>3</sup> )	BACKGROUND AMBIENT AIR CONCENTRATIONS (µg/m <sup>3</sup> )*	NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) (µg/m <sup>3</sup> )
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour max → 20.1 annual avg → 1.6	1-hour max → 107 annual avg → 22	1-hour max → 188 annual avg → 100
Carbon Monoxide (CO)	1-hour max → 17.1 8-hour max → 12.0	1-hour max. → 3322 8-hour max. → 2406	1-hour max. → 40,000 8-hour max. → 10,000
Sulfur Dioxide (SO <sub>2</sub> )	1-hour max → 7.0 24-hour max → 2.8	1-hour max → 59 24-hour max → 10	1-hour max → 196 24-hour max → 366
Particulate Matter (PM <sub>10</sub> )	24-hour max → 1.7	24-hour max. → 53	24-hour max. → 150

\*Background concentrations were obtained from Maryland air monitoring stations as follows:

NO<sub>2</sub> and PM<sub>10</sub> → Monitoring Station in Old Town, Baltimore City  
CO and SO<sub>2</sub> → Monitoring Station in Essex, Baltimore County

**TABLE III  
PREDICTED MAXIMUM OFF-SITE AMBIENT CONCENTRATIONS FOR  
TOXIC AIR POLLUTANTS EMITTED FROM THE FACILITY**

<b>Toxic Air Pollutant</b>	<b>PROJECTED WORST-CASE FACILITY-WIDE EMISSIONS (lbs/hr)</b>	<b>SCREENING LEVELS (µg/m<sup>3</sup>)</b>	<b>PREDICTED MAXIMUM OFF-SITE GROUND LEVEL CONCENTRATIONS (µg/m<sup>3</sup>)</b>
Acenaphthene (CAS No. 83329)	0.0000004	20.3 (8-hr)	0.000003 (8-hr)
Acenaphthylene (CAS No. 208968)	0.0000005	24.6 (8-hr)	0.000004 (8-hr)
Anthracene (CAS No. 120127)	0.0000013	20 (8-hr)	0.00001 (8-hr)
Antimony (CAS No. 7440360)	0.00012	5 (8-hr)	0.0009 (8-hr)
Arsenic (CAS No. 7440382)	0.00012	0.1 (8-hr) 0.002 (annual)	0.0009 (8-hr) 0.00000002 (annual)
Barium (CAS No. 7440393)	0.0001	5 (8-hr)	0.0007 (8-hr)
Benzo (g,h,i) perylene (CAS No. 191242)	0.0000001	20 (8-hr)	0.0000009 (8-hr)
Beryllium (CAS No. 7440417)	0.000005	0.0005 (8-hr) 0.004 (annual)	0.00004 (8-hr) 0.000000001 (annual)
Cadmium (CAS No. 7440439)	0.00004	0.02 (8-hr) 0.006 (annual)	0.0003 (8-hr) 0.000000009 (annual)
Chromium (CAS No. 7440473)	0.00012	5 (8-hr)	0.0009 (8-hr)
Chromium VI (CAS No. 18540299)	0.00005	0.01 (8-hr) 0.0008 (annual)	0.0004 (8-hr) 0.0000001 (annual)
Cobalt (CAS No. 7440484)	0.000007	0.2 (8-hr)	0.00005 (8-hr)
Copper (CAS No. 7440508)	0.0001	2 (8-hr)	0.0008 (8-hr)
Fluoranthene (CAS No. 206440)	0.0000008	82 (8-hr)	0.000006 (8-hr)
Fluorene (CAS No. 86737)	0.0000017	20 (8-hr)	0.00001 (8-hr)
Hydrogen Chloride (CAS No. 7647010)	0.29	29.8 (1-hr) 165 (8-hr)	6.13 (1-hr) 2.14 (8-hr)
Hydrogen Fluoride (CAS No. 7664393)	0.0026	16.4 (1-hr) 4.1 (8-hr)	5.57 (1-hr) 0.02 (8-hr)
Lead (CAS No. 7439921)	0.00027	0.5 (8-hr)	0.002 (8-hr)
Mercury (CAS No. 7439976)	0.013	0.3 (1-hr) 0.1 (8-hr)	0.28 (1-hr) 0.098 (8-hr)
Molybdenum (CAS No. 7439987)	0.00007	5 (8-hr)	0.0005 (8-hr)
Nickel (CAS No. 7440020)	0.00015	1 (8-hr)	0.0001 (8-hr)
Phenanthrene (CAS No. 85018)	0.000009	9.8 (8-hr)	0.00007 (8-hr)
Pyrene (CAS No. 129000)	0.0000006	20 (8-hr)	0.000005 (8-hr)
Selenium (CAS No. 7782492)	0.00017	2 (8-hr)	0.0013 (8-hr)

<b>Toxic Air Pollutant</b>	<b>PROJECTED WORST-CASE FACILITY-WIDE EMISSIONS (lbs/hr)</b>	<b>SCREENING LEVELS (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>PREDICTED MAXIMUM OFF-SITE GROUND LEVEL CONCENTRATIONS (<math>\mu\text{g}/\text{m}^3</math>)</b>
Silver (CAS No. 7440224)	0.000029	0.1 (8-hr)	0.0002 (8-hr)
Thallium (CAS No. 7440280)	0.00034	0.2 (8-hr)	0.0025 (8-hr)
Vanadium (CAS No. 7440622)	0.00023	0.5 (8-hr)	0.0017 (8-hr)
Zinc (CAS No. 7440666)	0.0014	1000 (1-hr) 500 (8-hr)	0.03 (1-hr) 0.01 (8-hr)
Total Dioxins and Furans (CAS No. 174016)	0.0000000056	0.0008 (8-hr)	0.00000004 (8-hr)

The values represent maximum facility-wide emissions of toxic air pollutants during any 1-hour period of facility operation.

The values are based on worst-case emissions from the proposed facility and were predicted by EPA's SCREEN3 model, which provides conservative estimations concerning the impact of pollutants on ambient air quality.

**DRAFT PERMIT**

Larry Hogan  
Governor

Ben Grumbles  
Secretary

**Air and Radiation Administration**

1800 Washington Boulevard, Suite 720  
Baltimore, MD 21230

Construction Permit

Operating Permit

PERMIT NO.:  
023-0182-1-0001

DATE ISSUED:  
**[Date Issued]**

PERMIT FEE:  
\$1,500.00 (PAID)

EXPIRATION DATE:  
In accordance with COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**

Newman Funeral Homes, P.A.  
P.O. Box 275 179 Miller Street  
Grantsville, MD. 21536

Attention: Mr. Donald Lynn Newman,  
President

**SITE**

Newman Funeral Homes, P.A.  
1100 Memorial Drive  
Oakland, Maryland 21550  
AI # 131916

**SOURCE DESCRIPTION**

Human crematory facility.

This permit authorizes the installation of one (1) 150 lb/hour human crematory

The permit to construct also serves as a temporary permit to operate for a period of up to 180 days after initiating operation of the human crematory authorized by this permit.

\_\_\_\_\_  
This source is subject to the conditions described on the attached pages.

**NEWMAN FUNERAL HOME, P.A.  
PERMIT-TO-CONSTRUCT CONDITIONS  
PERMIT NO. 023-0182-1-0001**

**INDEX**

- Part A – General Provisions
- Part B – Applicable Regulations
- Part C – Construction Conditions
- Part D – Operating Conditions
- Part E – Notifications and Monitoring
- Part F – Record Keeping and Reporting
- Part G – Temporary Permit-To-Operate Conditions

This permit covers the following registered installation:

<b>ARA Registration No.</b>	<b>Description</b>	<b>Installation Date</b>
023-0182-1-0001	One (1) Matthews Environmental Solutions, IE43-PPI multi-chamber human crematory rated at 150 pounds per hour.	2022

**Part A – General Provisions**

- (1) The following Air and Radiation Administration (ARA) permit-to-construct application forms and supplemental information are incorporated into this permit by reference:
  - (a) Application for Processing or Manufacturing Equipment (Form 5) received on May 6, 2021.
  - (b) Emissions Point Data (Form 5 EP) received May 6, 2021.
  - (c) Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration (Form 5T) received May 6, 2021.
  - (d) Supplemental Information as well as Emissions calculations, screen modeling results, plot plan, and equipment specifications received May 6, 2021.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

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- (2) Upon presentation of credentials, representatives of the Maryland Department of the Environment (“MDE” or the “Department”) and the Garrett County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee’s property and permitted to:
  - (a) inspect any construction authorized by this permit;
  - (b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;
  - (c) inspect any monitoring equipment required by this permit;
  - (d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and
  - (e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.
- (3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.
- (4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.
- (5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.
- (6) Subsequent to issuance of this permit, the Department may impose additional and modified requirements that are incorporated into a State permit-to-operate issued pursuant to COMAR 26.11.02.13.

**Part B – Applicable Regulations**

- (1) This source is subject to all applicable federal air pollution control requirements.
- (2) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

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- (a) COMAR 26.11.01.07C, which requires that the Permittee report to the Department occurrences of excess emissions.
- (b) COMAR 26.11.02.04B, which states that a permit to construct or an approval expires if, as determined by the Department:
  - (i) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
  - (ii) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
  - (iii) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.
- (c) COMAR 26.11.02.09A, which requires that the Permittee obtain a permit-to-construct if an installation is to be modified in a manner that would cause changes in the quantity, nature, or characteristics of emissions from the installation as referenced in this permit.
- (d) COMAR 26.11.08.04B, which prohibits visible emissions other than uncombined water.

Exceptions. The requirements do not apply to emissions during start-up, or adjustments or occasional cleaning of control equipment if:

- (i) The visible emissions are not greater than 40 percent opacity; and
  - (ii) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period.
- (e) COMAR 26.11.08.05A(3), which limits the concentration of particulate matter in any exhaust gases to not more than 0.10 grains per standard cubic foot of dry exhaust gas.
- (3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

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- (a) COMAR 26.11.02.13A(1), which requires that the Permittee obtain from the Department, and maintain and renew as required, a valid State permit-to-operate.
- (b) COMAR 26.11.02.19C & D, which require that the Permittee submit to the Department annual certifications of emissions, and that the Permittee maintain sufficient records to support the emissions information presented in such submittals.
- (c) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.
- (d) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.
- (e) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions would unreasonably endanger human health.

**Part C – Construction Conditions for the**  
**Matthews IE43-PPI Crematory**

- (1) Except as otherwise provided in this part, the Matthews IE43-PPI, 150 pounds per hour, human crematory shall be constructed in accordance with specifications included in the incorporated applications and in accordance with the specifications provided by the vendor and manufacturer.
- (2) The crematory shall be designed to limit particulate matter emissions to no more than 0.10 grains per standard cubic foot dry, adjusted to 12 percent carbon dioxide.
- (3) The crematory shall be equipped with a secondary combustion chamber capable of achieving a retention time of at least 1.0 second, and an operating temperature of at least 1600 °F.
- (4) The crematory shall be equipped with temperature sensors and recorders to continuously monitor and record the temperature of the secondary combustion chamber during operation.
- (5) The exhaust gases from the crematory stack shall discharge at least 46 feet above the ground.

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**Part D – Operating Conditions**

- (1) Except as otherwise provided in this part, all registered equipment shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.
- (2) The Permittee shall keep the Matthews IE43-PPI human crematory properly maintained and in good working condition so as to ensure full and continuous compliance with all applicable regulations
- (3) The Permittee shall comply with the following premises-wide operational limitations unless the Permittee can demonstrate, to the satisfaction of the Department, that compliance with all applicable air quality regulations and standards can be achieved at other conditions:
  - (a) Only human remains shall be cremated in the crematory unit.
  - (b) The Permittee shall not cremate more than 4 human remains during any 8-hour period.
  - (c) The Permittee shall not combust any halogenated plastics, including polyvinyl chloride (PVC) body bags or PVC pipes.
  - (d) The Permittee shall not combust any hazardous waste, or hospital, medical, and infectious waste as defined in COMAR 26.11.08.01B(18).
  - (e) The Permittee shall remove all sampling, monitoring, or other devices from human remains prior to cremation.
  - (f) The Permittee shall determine the weight of the human remains to be cremated prior to each cremation.
  - (g) The Permittee shall utilize the secondary chamber of the incinerator to comply with the T-BACT requirements of COMAR 26.11.15.05.
- (4) The Permittee shall comply with the following operational limitations on the Matthews IE43-PPI human crematory unless the Permittee can demonstrate, to the satisfaction of the Department, that compliance with all applicable air quality regulations and standards can be achieved at other conditions:

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- (a) The Permittee shall not charge the cremator unless the secondary chamber is "on" and has attained a temperature of at least 1600 °F.
- (b) The Permittee shall set the recycle time for the cremation so that human remains will not be cremated at a rate exceeding 150 pounds per hour.
- (c) The exhaust gases from the crematory stack shall discharge at least 46 feet above the ground.
- (d) While remains are being cremated, the Permittee shall maintain a secondary chamber temperature of at least 1600 °F.

**Part E – Notifications and Monitoring**

- (1) The Permittee shall notify the Department of the initial start-up date of the Matthews IE43-PPI human crematory within fifteen (15) days after the date.
- (2) While remains are cremated, the temperature of the flue gases at the outlet of the secondary combustion chamber shall be continuously monitored and recorded on a chart recorder or other continuous record keeping device. The records shall show the dates and times of all recorded temperature readings.

**Part F – Record Keeping and Reporting**

- (1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information for the crematory:
  - (a) Charts or other continuous records of the flue gas temperature at the outlet of the secondary combustion chamber. The records must show the date and start time of each cremation.
  - (b) A daily log of the following information:
    - (i) the date and start time of each cremation;
    - (ii) the approximate weight of each charge; and
    - (iii) the duration of each cremation cycle.
- (2) The Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, records necessary to support

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annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following:

- (a) mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions;
- (b) accounts of the methods and assumptions used to quantify emissions;
- (c) all operating data, including operating schedules and production data, that were used in determinations of emissions;
- (d) amounts, types, and analyses of all fuels used;
- (e) any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including:
  - (i) all emissions data generated by such monitors;
  - (ii) all monitor calibration data;
  - (iii) information regarding the percentage of time each monitor was available for service; and
  - (iv) information concerning any equipment malfunctions.
- (f) information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including:
  - (i) identifications and descriptions of all such equipment;
  - (ii) operating schedules for each item of such equipment;
  - (iii) accounts of any significant maintenance performed;
  - (iv) accounts of all malfunctions and outages; and
  - (v) accounts of any episodes of reduced efficiency.
- (g) limitations on source operation or any work practice standards that significantly affect emissions; and

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- (h) other relevant information as required by the Department.
- (3) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.01.05 – 1 and COMAR 26.11.02.19D.
- (a) Certifications of emissions shall be submitted on forms obtained from the Department.
  - (b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.
  - (c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:  
  
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- (4) The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. Such analysis shall include either:
- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
  - (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

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- (5) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Administration.

**Part G – Temporary Permit-to-Operate Conditions**

- (1) This permit-to-construct shall also serve as a temporary permit-to-operate that confers upon the Permittee authorization to operate the Matthews IE43-PPI human crematory for a period of up to 180 days after initiating operation of the unit.
- (2) During the effective period of the temporary permit-to-operate the Permittee shall operate the new installation as required by the applicable terms and conditions of this permit-to-construct, and in accordance with operating procedures and recommendations provided by equipment vendors.
- (3) The Permittee shall submit to the Department an application for a State permit-to-operate no later than 60 days prior to expiration of the effective period of the temporary permit-to-operate.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

## AIR AND RADIATION ADMINISTRATION

### SUPPLEMENTAL INFORMATION REFERENCES

The Code of Maryland Regulations (COMAR) is searchable by COMAR citation at the following Division of State Documents website:

<http://www.dsd.state.md.us/COMAR/ComarHome.html>

The Code of Federal Regulations (CFR), including New Source Performance Standards (NSPS) at 40 CFR, Part 60 and National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR, Parts 61 and 63, is searchable by CFR citation at the following U.S. Government Publishing Office website:

<http://www.ecfr.gov>

Information on National Ambient Air Quality Standards (NAAQS) is located at the following U.S. Environmental Protection Agency (EPA) website:

<https://www.epa.gov/criteria-air-pollutants/naaqs-table>

Information on Maryland's Ambient Air Monitoring Program is located at the following Maryland Department of the Environment website:

<http://mde.maryland.gov/programs/Air/AirQualityMonitoring/Pages/index.aspx>

Information on the U.S. EPA's Screen3 computer model and other EPA-approved air dispersion models is located at the following U.S. EPA website:

[http://www.epa.gov/scram001/dispersion\\_screening.htm](http://www.epa.gov/scram001/dispersion_screening.htm)

Information on the U.S. EPA TANKS Emission Estimation Software is located at the following U.S. EPA website:

<http://www.epa.gov/ttn/chief/software/tanks/index.html>

Information on the U.S. EPA Emission Factors and AP-42 is located at the following U.S. EPA website:

<https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors>