

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

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

**DOCKET #10-25**

COMPANY: Wylie Funeral Homes, P.A.

LOCATION: 9200-9206 Liberty Road  
Randallstown, MD 21133

APPLICATION: One (1) Matthews Environmental Solutions Power Pak II Plus Human  
Crematory rated at 175 lbs per hour

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Application and Informational Meeting
2	Environmental Justice (EJ) Information – MDEnviroScreen Report
3	Zoning Approval
4	Permit to Construct Application Forms - Form 5 - Form 5EP - Form 5T - Emissions calculations - Property maps - Manufacturer information

**MARYLAND 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 Wylie Funeral Homes, P.A. on June 12, 2025 for the installation of one (1) Matthew Environmental Solutions Power Pak II Plus Human Crematory rated at 175 lbs/hr. The proposed installation will be located at 9200-9206 Liberty Road, Randallstown, MD 21133.

In accordance with HB 1200/Ch. 588 of 2022, the applicant provided an environmental justice (EJ) Score for the census tract in which the project is located. The EJ Score, expressed as a statewide percentile, was shown to be 34.5. This score represents a combined measure of pollution and the potential vulnerability of a population to the effects of pollution.

Copies of the application and other supporting documents are available for public inspection on the Department's website:

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

Any applicant-provided information regarding a description of the indicators contributing to the EJ score can also be found at the listed website. Such information has not yet been reviewed by the Department. A review of the submitted information will be conducted when the Department undertakes its technical review of all documents included in the application.

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

The Informational Meeting will be held in-person on November 20, 2025 from 6:30 PM to 8:00 PM at the Randallstown Branch of the Baltimore County Public Library located at 8604 Liberty Road, Randallstown, MD 21133. You may also participate in the meeting virtually. Please register to attend using the following link:

<https://forms.gle/Y4UqtocfzQPfaEULA>

Registered attendees will receive instructions on how to join virtually using your computer or telephone.

The Department will provide language translation services and/or 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 meeting. Further information may be obtained by calling Ms. Shannon Heafey at 410-537-4433.

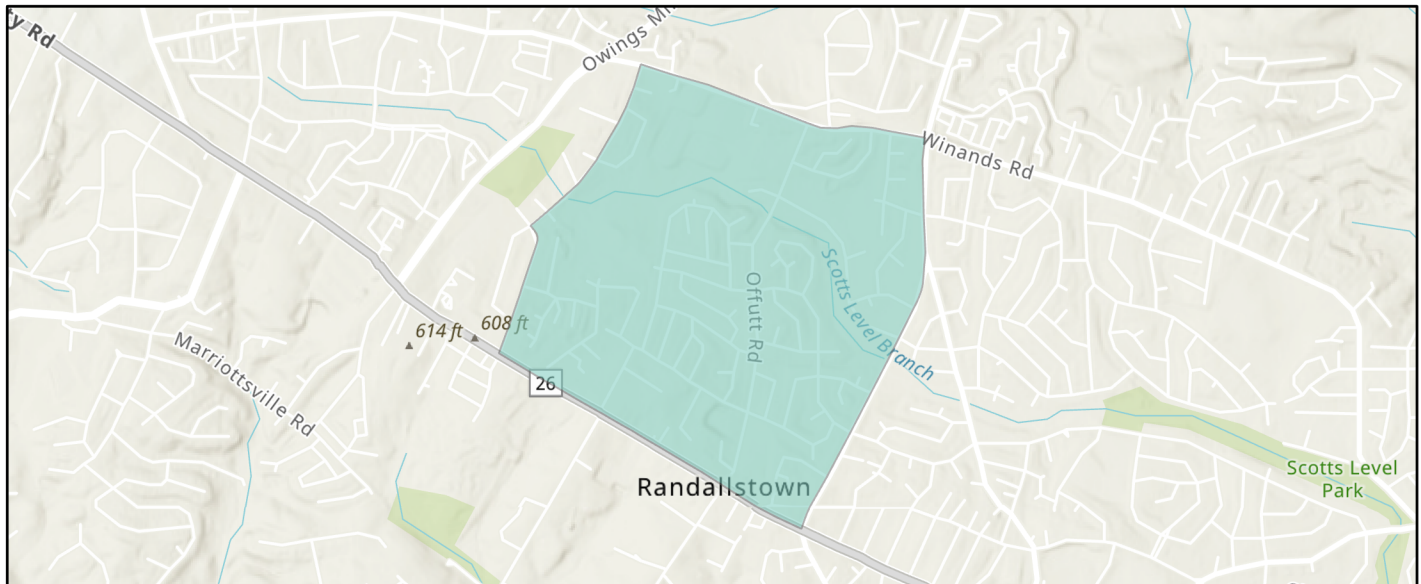
Christopher R. Hoagland, Director  
Air and Radiation Administration



# MDEnviroScreen Report

Census Tract ID: 24005402506

County: Baltimore



## MDEnviroScreen Summary

**EJ Score: 34.5**

**Overburdened Community: Yes**

**Underserved Community: Yes**

## MDEnviroScreen EJ Score Indicators

Pollution Burden Exposure		Pollution Environmental Effect		Sensitive Population	
<u>Indicator</u>	<u>Percentile</u>	<u>Indicator</u>	<u>Percentile</u>	<u>Indicator</u>	<u>Percentile</u>
PM 2.5	88.9	Lead Paint	44.3	Low Birth Weight	50
Ozone	65.4	RMP Facility	0	Asthma Discharge	81.4
Diesel PM	30.3	Superfund	0	Myocardial Infarction	86.2
Cancer Risk	9.5	Hazardous Waste	18.8	Lack of Broadband	53.2
Respiratory Hazard	2.9	Wastewater	10.6	Low Income*	30.7
Traffic	40.5	Brownfield	11.4		
Toxic Release	31	Power Plant	0		
Hazardous Landfill	0	CAFO	0		
		Mining	63.3		

\*The MDEnviroScreen EJ score represents a combined measure of pollution and the potential vulnerability of a population to the effects of pollution. The EJ score in MDEnviroScreen does not include data from every available map layer. For example, it does not include race/ethnicity or age, however, MDE has made that information available for informational purposes only. Collecting and displaying this data allows users to evaluate the relationships between demographics and pollution burden, and can be used to better understand issues related to environmental justice and racial equity in Maryland. MDE cautions users against using the "Underserved" map layer, or its subcategories, in any manner that would be considered discriminatory under applicable law.



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

June 12, 2025

Subject: Application for Air Quality General Permit to Construct – Matthews Environmental Solutions Power Pak II Plus Cremator

To Whom It May Concern,

Wylie Funeral Homes PA is pleased to submit the enclosed Air Quality General Permit to Construct Application Package for the installation of a crematorium unit at the following location:

9200-9206 Liberty Road  
Randallstown, Maryland 21133

The proposed equipment is a Matthews Environmental Solutions Power Pak II Plus, Model IE43-PPII Plus Cremator.

Should you have any questions or require additional information to process this application, please do not hesitate to contact me directly at (410) 984 4180 or [bwylie@wyliefh.com](mailto:bwylie@wyliefh.com). Alternatively, you may reach out to Dr. Mark Gibson at KCI Technologies Inc. via (240) 517-1451 or [mark.gibson@kci.com](mailto:mark.gibson@kci.com).

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Wylie", is written over a light blue, stylized background graphic that resembles a large, abstract letter 'W'.

Brandon M. Wylie, CFSP, MBA  
Wylie Funeral Homes, PA  
9200 Liberty Rd Randallstown, Md 21133  
410-984-4180 cell  
410-655-9200 office  
[bwylie@wyliefh.com](mailto:bwylie@wyliefh.com)

*Remarkable service. Exceptional funeral homes.*



## AIR QUALITY PERMIT TO CONSTRUCT APPLICATION CHECKLIST

OWNER OF EQUIPMENT/PROCESS	
COMPANY NAME:	WYLIE FUNERAL HOMES PA
COMPANY ADDRESS:	9200 9206 LIBERTY ROAD, RANDALLSTOWN, 21133 MARYLAND
LOCATION OF EQUIPMENT/PROCESS	
PREMISES NAME:	WYLIE FUNERAL HOMES PA
PREMISES ADDRESS:	9200 9206 LIBERTY ROAD, RANDALLSTOWN, 21133 MARYLAND
CONTACT INFORMATION FOR THIS PERMIT APPLICATION	
CONTACT NAME:	Mr. BRANDON M. WYLIE
JOB TITLE:	PRESIDENT/CEO
PHONE NUMBER:	(410) 984-4180
EMAIL ADDRESS:	bwylie@wyliefh.com
DESCRIPTION OF EQUIPMENT OR PROCESS	
THE ADDITION OF A CREMATORIUM AT THE ABOVE LOCATION	

Application is hereby made to the Department of the Environment for a Permit to Construct for the following equipment or process as required by the State of Maryland Air Quality Regulation, COMAR 26.11.02.09.

Check each item that you have submitted as part of your application package.

- ☒ Application package cover letter describing the proposed project
- ☒ Complete application forms (Note the number of forms included or NA if not applicable.)
 

No. <u>1</u>	Form 5	No. <u>NA</u>	Form 11
No. <u>1</u>	Form 5T	No. <u>NA</u>	Form 41
No. <u>1</u>	Form 5EP	No. <u>NA</u>	Form 42
No. <u>NA</u>	Form 6	No. <u>NA</u>	Form 44
No. <u>NA</u>	Form 10		
- ☒ Vendor/manufacturer specifications/guarantees
- ☒ Evidence of Workman's Compensation Insurance
- ☒ Process flow diagrams with emission points
- ☒ Site plan including the location of the proposed source and property boundary
- ☒ Material balance data and all emissions calculations
- ☐ Material Safety Data Sheets (MSDS) or equivalent information for materials processed and manufactured.
- ☐ Certificate of Public Convenience and Necessity (CPCN) waiver documentation from the Public Service Commission <sup>(1)</sup>
- ☒ Documentation that the proposed installation complies with local zoning and land use requirements <sup>(2)</sup>

<sup>(1)</sup> Required for emergency and non-emergency generators installed on or after October 1, 2001 and rated at 2001 kW or more.

<sup>(2)</sup> Required for applications subject to Expanded Public Participation Requirements.

**ATTACHMENT A**

**ZONING APPROVAL LETTER FOR A CREMATORIUM ADDITION  
TO WYLIE FUNERAL HOMES PA  
9200 9206 LIBERTY ROAD, RANDALLSTOWN, 21133 MARYLAND**



KATHERINE A. KLAUSMEIER  
*County Executive*

MAUREEN E. MURPHY  
*Chief Administrative Law Judge*  
ANDREW M. BELT  
*Administrative Law Judge*  
DEREK J. BAUMGARDNER  
*Administrative Law Judge*

April 15, 2025

Jennifer Busse, Esquire – [jbusse@rosenbergmartin.com](mailto:jbusse@rosenbergmartin.com)  
Adam Baker, Esquire – [abaker@rosenbergmartin.com](mailto:abaker@rosenbergmartin.com)  
Rosenberg Martin Greenberg, LLP  
25 S. Charles Street, 21st Floor  
Baltimore, MD 21201

**RE: MOTION FOR RECONSIDERATION**

Case No. 2024-0161-SPHXA

Property: 9200 9206 Liberty Road

Dear Counsel:

Enclosed please find a copy of the decision rendered in the above-captioned matter.

Pursuant to Baltimore County Code § 32-3-401(a), “a person aggrieved or feeling aggrieved” by this Decision and Order may file an appeal to the County Board of Appeals within thirty (30) days of the date of this Order. For further information on filing an appeal, please contact the Office of Administrative Hearings at 410-887-3868.

Sincerely,

A handwritten signature in black ink that reads "Maureen E. Murphy".

MAUREEN E. MURPHY  
Chief Administrative Law Judge  
for Baltimore County

MEM:dlm  
c: -See Next Page-

C:	Brandon Wylie	<a href="mailto:bwylie@wyliefh.com">bwylie@wyliefh.com</a>
	AC	<a href="mailto:amina.calland@gmail.com">amina.calland@gmail.com</a>
	Al Barnes	<a href="mailto:al21133@yahoo.com">al21133@yahoo.com</a>
	Alisha M. Helphenstine	<a href="mailto:ahelphenstine@baltimorecountymd.gov">ahelphenstine@baltimorecountymd.gov</a>
	Andrew G.	<a href="mailto:andrewglick14@gmail.com">andrewglick14@gmail.com</a>
	Anthony	<a href="mailto:abrayboy57@yahoo.com">abrayboy57@yahoo.com</a>
	Beverly Anne Williams	<a href="mailto:tosca1992@outlook.com">tosca1992@outlook.com</a>
	Beverly James	<a href="mailto:brj19883@gmail.com">brj19883@gmail.com</a>
	Brianna Dorsey	<a href="mailto:executive.director@grcdo.org">executive.director@grcdo.org</a>
	Carolyn Samuels	<a href="mailto:samuels86@hotmail.com">samuels86@hotmail.com</a>
	Chan	<a href="mailto:parlia35@msn.com">parlia35@msn.com</a>
	Chrissandra Caldwell	<a href="mailto:ccaldwell@baltimorecountymd.gov">ccaldwell@baltimorecountymd.gov</a>
	Danny Blount	<a href="mailto:dannyblount@verizon.net">dannyblount@verizon.net</a>
	Des	<a href="mailto:brayboydestiny@gmail.com">brayboydestiny@gmail.com</a>
	Eardene Porter	<a href="mailto:peardene@gmail.com">peardene@gmail.com</a>
	Emily Jolicoeur	<a href="mailto:ejolicoeur@baltimorecountymd.gov">ejolicoeur@baltimorecountymd.gov</a>
	Emmanuel Jato	<a href="mailto:jatomunki@gmail.com">jatomunki@gmail.com</a>
	G	<a href="mailto:anotheraccounttoremember@yahoo.com">anotheraccounttoremember@yahoo.com</a>
	India Artis	<a href="mailto:indiaaartis@gmail.com">indiaaartis@gmail.com</a>
	Jacqueline Massey	<a href="mailto:masseyx4@aol.com">masseyx4@aol.com</a>
	James J Simmons	<a href="mailto:bobbii@msn.com">bobbii@msn.com</a>
	Janet	<a href="mailto:jamaxand@aol.com">jamaxand@aol.com</a>
	John Sakal	<a href="mailto:johnsakal@hotmail.com">johnsakal@hotmail.com</a>
	Joyce Wilson	<a href="mailto:joycewilson9314@comcast.net">joycewilson9314@comcast.net</a>
	K. Thompson	<a href="mailto:karen.thompson26@gmail.com">karen.thompson26@gmail.com</a>
	Katia	<a href="mailto:katiamhaney@gmail.com">katiamhaney@gmail.com</a>
	Kim Green	<a href="mailto:kbgreen22@verizon.net">kbgreen22@verizon.net</a>
	Linda Dorsey-Walker	<a href="mailto:lrwalk4@aol.com">lrwalk4@aol.com</a>
	Luke Hasemeier	<a href="mailto:hazzlebanger@yahoo.com">hazzlebanger@yahoo.com</a>
	Michelle H. Huggins	<a href="mailto:mhuggins@towson.edu">mhuggins@towson.edu</a>
	Nan Sherman	<a href="mailto:nan@jobsinpjs.com">nan@jobsinpjs.com</a>
	Natasha Gordon	<a href="mailto:natasha.gordon@me.com">natasha.gordon@me.com</a>
	Nikki Lawson	<a href="mailto:nikki.d.dickerson@gmail.com">nikki.d.dickerson@gmail.com</a>
	Pearl Kirby	<a href="mailto:pt.kirby603@hotmail.com">pt.kirby603@hotmail.com</a>
	Rachel De Four	<a href="mailto:rdefour5@verizon.net">rdefour5@verizon.net</a>
	Rebecca Wheatley	<a href="mailto:rwheatley@baltimorecountymd.gov">rwheatley@baltimorecountymd.gov</a>
	Robin	<a href="mailto:radavidson06@gmail.com">radavidson06@gmail.com</a>
	Sandy Parobeck	<a href="mailto:rome4101@gmail.com">rome4101@gmail.com</a>
	Sheila Lewis	<a href="mailto:msheather12@hotmail.com">msheather12@hotmail.com</a>



Shirley Nelson	<a href="mailto:care0113@hotmail.com">care0113@hotmail.com</a>
Shirley Supik	<a href="mailto:epsafehousesupik@verizon.net">epsafehousesupik@verizon.net</a>
Smallwood, Suzanne	<a href="mailto:suzanne.smallwood@umm.edu">suzanne.smallwood@umm.edu</a>
Steve Silfen	<a href="mailto:foodman22451@msn.com">foodman22451@msn.com</a>
Tasha Moore	<a href="mailto:tasha.moore00@comcast.net">tasha.moore00@comcast.net</a>
Tim Bundy	<a href="mailto:timothy.bundy@hotmail.com">timothy.bundy@hotmail.com</a>
Yolanda Gregory	<a href="mailto:ygregory@baltimorecountymd.gov">ygregory@baltimorecountymd.gov</a>
Zelda Marshall	<a href="mailto:zeldastyle1@yahoo.com">zeldastyle1@yahoo.com</a>
Ccaldwell	<a href="mailto:ccaldwell@baltimorecountymd.gov">ccaldwell@baltimorecountymd.gov</a>
joan	<a href="mailto:joan.whitemccain@lpl.com">joan.whitemccain@lpl.com</a>
kelvet talley	<a href="mailto:wellkept79@verizon.net">wellkept79@verizon.net</a>
kelvet talley	<a href="mailto:wellkept79@verizon.net">wellkept79@verizon.net</a>
tee	<a href="mailto:tashiya705@gmail.com">tashiya705@gmail.com</a>
Watson	<a href="mailto:jejonesjr@comcast.net">jejonesjr@comcast.net</a>

<b>IN RE: PETITIONS FOR SPECIAL HEARING,</b>	*	BEFORE THE
<b>SPECIAL EXCEPTION &amp; VARIANCE</b>		
9200 and 9206 Liberty Road	*	OFFICE OF
2 <sup>nd</sup> Election District		
4 <sup>th</sup> Council District	*	ADMINISTRATIVE HEARINGS
FAS, LLC		
<i>Legal Owner</i>	*	FOR BALTIMORE COUNTY
<b>Petitioner</b>	*	<b>Case No. 2024-0161-SPHXA</b>
*   *   *   *   *	*   *	

**ORDER ON MOTION FOR RECONSIDERATION**

Now pending is a Motion for Reconsideration filed by People’s Counsel on April 1, 2025, on the March 17, 2025 Opinion and Order issued in the above-captioned case. On April 10, 2025, Petitioner filed a Response to that Motion.

In the Motion, People’s Counsel takes issue with the finding that the crematory or crematorium use proposed is a type of ‘funeral establishment’ and as such, would be permitted by Special Exception as a principal use in both the RO and DR 5.5. In support of that position, People’s Counsel looks to the definition of ‘funeral home’ from the most recent edition of Webster’s Third New International Dictionary of the English Language Unabridged which reads as follows:

**funeral home or funeral parlor**

**: an establishment with facilities for** the preparation of the dead for burial or **cremation**, for the viewing of the body, and for funerals

By its unambiguous language, that definition unequivocally supports the finding that a crematorium is a type of funeral establishment. The County Council, by specifically instructing that all undefined words have the meanings in Webster’s Third New International Dictionary, has

authorized the Office of Administrative Hearing (“OAH”) to interpret the Baltimore County Zoning Regulations (“BCZR”) uses and to make that finding. As importantly, People’s Counsel reliance on the Zoning Commissioner’s Policy Manual (“ZCPM”) directive - that a crematorium as a principal use can be sought through a Special Hearing – only lends further support for OAH’s authority to interpret the BCZR and make a finding of principal use. Indeed, in this Case, the Petitioner did file a Petition for Special Hearing to ‘amend the prior approval granted in Case No. 2002-0174-XA, to permit the expansion of an existing and previously approved funeral establishment to include a crematorium,’ along with a catch-all general request for Special Hearing relief, as the OAH shall direct. Lastly, as to People’s Counsel’s argument that funeral establishments cannot be located on adjoining properties, BCZR has no such prohibition (unlike the prohibition of two (2) Assisted Living Facilities (“ALF”) located within 1,000 ft of one another; See BCZR, §432A.1.A.3).

Nonetheless, the Motion will be granted, but for a different reason. In the Response to Motion for Reconsideration, Petitioner asserts (for the first time), that 9200 and 9206 Liberty Rd. will be merged for zoning purposes as part of the development process. While there was evidence that parking lots crossed the Property lines, and that Petitioner was using 9206 Liberty Rd. as office space in support of the use at 9200 Liberty Rd., it was not made clear (until now) that the lots would be consolidated into a single property.

Borrowing the language from MD Rule 2-534, and in the interests of judicial economy considering the potential for a *de novo* appeal, after entry of judgment, a decision can be altered, to amend the findings or the statement of reasons for a decision. As a result, I find that the crematorium use will be an accessory use to the existing funeral home conditioned upon the merger or consolidation of 9200 and 9206 Liberty Rd. in the development process. Toward that end, the

Motion for Reconsideration will be granted, and the Opinion and Order will be amended to grant the Special Hearing relief and the Special Exception relief as set forth herein.

THEREFORE, IT IS ORDERED this 15<sup>th</sup> day of **April, 2025**, by this Administrative Law Judge that, for the reasons set forth herein, People's Counsel's Motion for Reconsideration be, and it is hereby **GRANTED**; and

IT IS FURTHER ORDERED that, the Petition for Special Exception pursuant to BCZR, §1B01.1.C.9 (DR 5.5) and from BCZR, §204.3.B.1 (RO) to permit a crematorium as a funeral establishment as an accessory use at 9206 Liberty Rd., be, and it is hereby **GRANTED**, and;

IT IS FURTHER ORDERED that, pursuant to BCZR, §502.3, the Special Exception is valid for a period of five (5) years from the date of this Order, and;

IT IS FURTHER ORDERED that the Petition for Special Hearing filed from BCZR §500.7 to amend the prior approval granted in Case No. 2002-0174-XA to permit the expansion of an existing and previously approved funeral establishment at 9200 Liberty Rd. to include a crematorium be, and it is hereby **GRANTED**; and

IT IS FURTHER ORDERED, that the Petition for Variance pursuant to BCZR §1B01.1.B.1.c(2) to permit a Residential Transition Area ("RTA") vegetative buffer and parking setback of 12-15 ft. on the western side yard, and 11 ft on the north eastern rear yard, in lieu of the otherwise required 50 ft for the vegetative buffer and 75 ft for the parking lot setback be, and they are each hereby, **GRANTED**.

The relief granted herein shall be subject to the following:

1. Petitioner may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioner is hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioner would be required to return the subject property to its original condition.

2. The Site Plan (Pet. Ex. 1), a copy of which is attached hereto, is incorporated herein.
3. In regard to 9200 Liberty Rd. funeral home property, all of the Conditions set forth in the Opinion and Order of the Board of Appeals dated January 31, 2003 remain applicable to the funeral home use with the exception of Condition #6 regarding a security gate at the entrance to the funeral home property, which Condition will be eliminated.
4. In regard to 9206 Liberty Rd. crematorium property, all of the Conditions set forth in the Opinion and Order of the Board of Appeals dated January 31, 2003 remain applicable to the crematorium use with the exception of Condition #6 regarding the installation of a security gate at the entrance to the crematorium property, which Condition will be required.
5. Petitioner must comply with the DPR ZAC comment, a copy of which is attached hereto and made a part hereof.
6. As part of the development process, 9200 and 9206 Liberty Rd shall be merged and/or consolidated into a single property for zoning purposes.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.



MAUREEN E. MURPHY  
Administrative Law Judge  
for Baltimore County

MEM/dlm



**BALTIMORE COUNTY, MARYLAND**

**INTEROFFICE CORRESPONDENCE**

**TO:** Peter Gutwald, Director  
Department of Permits, Approvals

**DATE:** November 16, 2024

**FROM:** Vishnu Desai, Supervisor  
Bureau of Development Plans Review

**SUBJECT:** Zoning Advisory Committee Meeting  
Case 2024-0161-A

*The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.*

**DPR:** No comment.

**DPW-T:** No exception taken.

**Landscaping:** If Special Hearing and / or Special Exception and / or Zoning Relief is granted a Landscape Plan is required per the Baltimore County Landscape Manual and a Lighting Plan is also required.

**Recreations & Parks:** No comment LOS & No Greenways affected.

**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**

Mr. Brandon M. Wylie, President & CEO/ Wylie Funeral Homes PA

**Mailing Address**

9200 9206 Liberty Road  
Street Address

Randallstown MD 21133  
City State Zip

**Telephone Number**

(410) 984-4180

**Signature**



Mr. Brandon M. Wylie, President/CEO, Wylie Funeral Homes PA 6/12/2025  
Print Name and Title Date

**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

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

Street Number and Street Name

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)

--	--	--	--

20-23

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

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

**5. Workmen's Compensation Coverage\_Selective Insurance\_WC9146923 2/1/2025 - 2/1/202**

Binder/Policy Number

Expiration Date

Company\_Wylie Funeral Homes PA

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 TBD \_\_\_\_\_ Title \_\_\_\_\_  
Company TBD \_\_\_\_\_  
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

X

24-0

Simple/Multiple  
Cyclone

☐

24-1

Spray/Adsorb  
Tower

☐

24-2

Venturi  
Scrubber

☐

24-3

Carbon  
Adsorber

☐

24-4

Electrostatic  
Precipitator

☐

24-5

Baghouse

☐

24-6

Thermal/Catalytic  
Afterburner

☐

24-7

Dry  
Scrubber

☐

24-8

Other

☐

Describe \_\_\_\_\_

24-9

**10. Annual Fuel Consumption for this Equipment**

OIL-1000 GALLONS						SULFUR %		GRADE	NATURAL GAS-1000 FT <sup>3</sup>						LP GAS-100 GALLONS				GRADE
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
26-31						32-33		34	35-41						42-45				
						▲			1 1 2 3 2										

COAL- TONS						SULFUR %		ASH%		WOOD-TONS				MOISTURE %	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
46-52						53-55		56-58		59-63				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	Batch Process	Hours per Batch	Batch per Week	Hours per Day	Days Per Week	Days per Year
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
67-1	67-2	68-69		70-71	72	73-75
Seasonal Variation in Operation:						
No Variation	Winter Percent	Spring Percent	Summer Percent	Fall Percent	(Total Seasons= 100%)	
<input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
76	77-78	79-80	81-82	83-84		



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

85

If not, then

Height Above Ground (FT)

Inside Diameter at Top (in)

Exit Temperature (°F)

Exit Velocity (FT/SEC)

	3	0
--	---	---

86-88

	2	0
--	---	---

89-91

1	1	0	0
---	---	---	---

92-95

	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)**INPUT RATE**

NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1. HUMAN REMAINS		175	lbs/hr	273	tons/yr
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

**TOTAL****14. Output Materials (for this equipment)****Process/Product Stream****OUTPUT RATE**

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

**TOTAL****15. Waste Streams- Solid and Liquid****OUTPUT RATE**

NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
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						Oxides of Sulfur						Oxides of Nitrogen					
		4	.	0	9			1	.	9				3	.	1	2
99-104						105-110						111-116					
Carbon Monoxide						Volatile Organic Compounds						PM-10					
		2	.	5	8			0	.	2	6			4	.	0	
177-122						123-128						129-134					

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

Particulate Matter						Oxides of Sulfur						Oxides of Nitrogen					
135-139						140-144						145-149					
Carbon Monoxide						Volatile Organic Compounds						PM-10					
150-154						155-159						160-164					

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

TSP	SOX	NOX	CO	VOC	PM10
2	2	2	2	2	2
165	166	167	168	169	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****Reviewed by State**

Date \_\_\_\_\_ By \_\_\_\_\_ Date \_\_\_\_\_ By \_\_\_\_\_

**19. Inventory Date****Month/Year****Equipment Code****SCC Code**

--	--	--	--

171-174

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175-177

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178-185

**20. Annual****Maximum Design****Permit to Operate****Transaction Date****Operating Rate****Hourly Rate****Month****(MM/DD/YR)**

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

186-192

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

193-199

--	--

200-201

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

202-207

**Staff Code****VOC Code****SIP Code****Regulation Code****Confidentiality**

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208-210

--	--

211 212

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213 214

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215-218

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219

**Point Description**

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

220-238

**Action**

--

A: Add  
C: Change

239



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration • Air Quality Permits Program

1800 Washington Boulevard • Baltimore, Maryland 21230

(410)537-3225 • 1-800-633-6101 • [www.mde.maryland.gov](http://www.mde.maryland.gov)

## 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: Mr. Brandon M. Wylie

### 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)?	I	Seasonal Variation	
		Check box if none: <input checked="" type="checkbox"/> Otherwise estimate seasonal variation:	
Minutes per hour:	60	Winter Percent	
Hours per day:	10	Spring Percent	
Days per week:	6	Summer Percent	
Weeks per year:	52	Fall Percent	

### 4. Emission Point Information

Height above ground (ft):	30	Length and width dimensions at top of rectangular stack (ft):	Length:		Width:	
Height above structures (ft):	10					
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):			36.67 ft	
Exhaust gas volumetric flow rate (acfm):	2100	Building dimensions if emission point is located on building (ft)	Height 20	Length 115' - 4"	Width 72' - 8"	

### 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:

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

[illegible]

(Attach additional sheets as necessary.)

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

Applicant Name: \_\_\_\_\_

**\*\*Results are in an addendum\*\***

**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			
						Actual Total Existing TAP Emissions	Projected TAP Emissions from Proposed Installation	Premises Wide Total TAP Emissions	
			1-hour	8-hour	Annual	(lb/hr)	(lb/hr)	(lb/hr)	(lb/yr)
<i>ex. ethanol</i>	64175	II	18843	3769	N/A	0.60	0.15	0.75	1500
<i>ex. benzene</i>	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. **\*\*NOT APPLICABLE\*\***

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

(attach additional sheets as necessary)

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

**\*\*Results are in an addendum\*\***

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 ( $\mu\text{g}/\text{m}^3$ )			Premises Wide Total TAP Emissions		Allowable Emissions Rate (AER) per COMAR 26.11.16.02A		Off-site Concentrations per Screening Analysis ( $\mu\text{g}/\text{m}^3$ )			Compliance Method Used?
		1-hour	8-hour	Annual	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	1-hour	8-hour	Annual	AER or Screen
<i>ex. ethanol</i>	<i>64175</i>	<i>18843</i>	<i>3769</i>	<i>N/A</i>	<i>0.75</i>	<i>1500</i>	<i>0.89</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>AER</i>
<i>ex. benzene</i>	<i>71432</i>	<i>80</i>	<i>16</i>	<i>0.13</i>	<i>1.00</i>	<i>400</i>	<i>0.04</i>	<i>36.52</i>	<i>1.5</i>	<i>1.05</i>	<i>0.12</i>	<i>Screen</i>

(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.**

## **ATTACHMENT B**

### **AERSURFACE LANDUSE CHARACTERIZATION MODEL RESULTS, SCREEN3 INPUT / OUTPUT AND TOXYTOOL SCREENING RESULTS**



# AERSURFACE LANDUSE CHARACTERISTICS MODEL RESULTS FOR USE IN SCREEN3

NLCD Code	Description	No. of Cells	% of Total	Rural/Urban	
0	Missing, Out-of-Bounds, or Unde:	0	0%	Rural	Rural: 53% Urban: 47%
11	Open Water:	23	0%	Rural	
12	Perennial Ice/Snow:	0	0%	Rural	
21	Developed, Open Space:	6304	20%	Rural	
22	Developed, Low Intensity:	9211	29%	Urban	
23	Developed, Medium Intensity:	4426	14%	Urban	
24	Developed, High Intensity:	1034	3%	Urban	
31	Barren Land (Rock/Sand/Clay):	33	0%	Rural	
32	Unconsolidated Shore:	0	0%	Rural	
41	Deciduous Forest:	6852	22%	Rural	
42	Evergreen Forest:	17	0%	Rural	
43	Mixed Forest:	353	1%	Rural	
51	Dwarf Scrub:	0	0%	Rural	
52	Shrub/Scrub:	28	0%	Rural	
71	Grasslands/Herbaceous:	160	1%	Rural	
72	Sedge/Herbaceous:	0	0%	Rural	
73	Lichens:	0	0%	Rural	
74	Moss:	0	0%	Rural	
81	Pasture/Hay:	2673	9%	Rural	
82	Cultivated Crops:	282	1%	Rural	
90	Woody Wetlands:	25	0%	Rural	
91	Palustrine Forested Wetland:	0	0%	Rural	
92	Palustrine Scrub/Shrub Wetland:	0	0%	Rural	
93	Estuarine Forested Wetland:	0	0%	Rural	
94	Estuarine Scrub/Shrub Wetland:	0	0%	Rural	
95	Emergent Herbaceous Wetland:	0	0%	Rural	
96	Palustrine Emergent Wetland (Pe:	0	0%	Rural	
97	Estuarine Emergent Wetland:	0	0%	Rural	
98	Palustrine Aquatic Bed:	0	0%	Rural	
99	Estuarine Aquatic Bed:	0	0%	Rural	
-----					
Total:		31421			

05/20/25

14:39:41

\*\*\* SCREEN3 MODEL RUN \*\*\*

\*\*\* VERSION DATED 13043 \*\*\*

C:\Users\mark.gibson\crematorium new.scr

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT  
EMISSION RATE (G/S) = 0.126000  
STACK HEIGHT (M) = 9.1400  
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 (Determined by Running AERMOD, AERSURFACE. See attached calculations above)  
BUILDING HEIGHT (M) = 6.0960  
MIN HORIZ BLDG DIM (M) = 22.1500  
MAX HORIZ BLDG DIM (M) = 35.1500

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.

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

BUOY.FLUX =  $2.552 \text{ M}^{**4}/\text{S}^{**3}$ ; MOM. FLUX =  $0.811 \text{ M}^{**4}/\text{S}^{**2}$ .

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

\*\*\*\*\*

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

\*\*\*\*\*

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

DIST	CONC		U10M	USTK	MIX HT	PLUME	SIGMA	SIGMA	
(M)	(UG/M**3)	STAB	(M/S)	(M/S)	(M)	HT (M)	Y (M)	Z (M)	DWASH
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6.	0.000	0	0.0	0.0	0.0	0.00	0.00	0.00	NA
100.	29.33	4	8.0	8.0	2560.0	10.08	8.20	6.68	SS
200.	24.45	4	5.0	5.0	1600.0	12.27	15.56	10.16	SS
300.	18.80	4	4.0	4.0	1280.0	14.22	22.61	13.18	SS
400.	15.25	4	3.0	3.0	960.0	17.85	29.45	16.10	SS
500.	12.75	4	2.5	2.5	800.0	20.90	36.15	18.94	SS
600.	10.88	4	2.5	2.5	800.0	20.90	42.72	21.84	SS
700.	9.647	4	2.0	2.0	640.0	25.58	49.19	24.44	SS
800.	8.527	4	2.0	2.0	640.0	25.58	55.57	27.17	SS
900.	7.706	4	1.5	1.5	480.0	33.44	61.88	29.54	SS
1000.	7.106	4	1.5	1.5	480.0	33.44	68.13	32.09	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 6. M:

61. 35.43 5 5.0 5.0 10000.0 10.98 3.93 4.94 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,  $X < 3 \cdot LB$

\*\*\*\*\*

\* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR \*

\* SIMPLE ELEVATED TERRAIN PROCEDURE \*

\*\*\*\*\*

TERRAIN DISTANCE RANGE (M)

HT (M) MINIMUM MAXIMUM

-----

0. 6. 1000.

\*\*\*\*\*

\*\*\* REGULATORY (Default) \*\*\*

PERFORMING CAVITY CALCULATIONS  
WITH ORIGINAL SCREEN CAVITY MODEL  
(BRODE, 1988)

\*\*\*\*\*

\*\*\* CAVITY CALCULATION - 1 \*\*\*

CONC (UG/M\*\*3) = 0.000  
 CRIT WS @10M (M/S) = 99.99  
 CRIT WS @ HS (M/S) = 99.99  
 DILUTION WS (M/S) = 99.99  
 CAVITY HT (M) = 6.18  
 CAVITY LENGTH (M) = 25.19  
 ALONGWIND DIM (M) = 22.15

\*\*\* CAVITY CALCULATION - 2 \*\*\*

CONC (UG/M\*\*3) = 0.000  
 CRIT WS @10M (M/S) = 99.99  
 CRIT WS @ HS (M/S) = 99.99  
 DILUTION WS (M/S) = 99.99  
 CAVITY HT (M) = 6.10  
 CAVITY LENGTH (M) = 20.31  
 ALONGWIND DIM (M) = 35.15

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	35.43	61.	0.

Premises Wide Human (number of cremations)	Animal (lbs)
1	0
6	0
1872	0

	Animal to Human Equivalent
Cremations per Hour	0.0
Cremations per 8-hour	0.0
Cremations per year	0.0

35.43

Screen3 maximum concentration (1 lb/hr emission rate) from crematory stacks Max concentration observed 61 meters (200 feet) from the stack.

CAS	POLLUTANT	Emission Factor (EPA FIRE) (cremations)	Emission Factor (as number) (Cremations)	MDE Screening Level 1-HOUR (ug/m3)	MDE Screening Level 8-HOUR (ug/m3)	MDE Screening Level Annual (ug/m3)	Screen3 Concentration 1-hour (ug/m3)	Screen3 Concentration 8-hour (ug/m3)	Screen3 Concentration Annual (ug/m3)	Screen3	Screen3	Screen3	SME?	AER?	Emissions (lb/hr)	Emissions (tpy)
										Concentration as % of MDE Screening Level 1-hour	Concentration as % of MDE Screening Level 8-hour	Concentration as % of MDE Screening Level Annual				
83329	Acenaphthene	1.11E-07	1.11E-07		2.03E+01		3.93E-06	2.06E-06	6.72E-08			0.00	NO	YES	1.11E-07	1.04E-07
208968	Acenaphthylene	6.73E-07	6.73E-07		2.46E+01		2.38E-05	1.25E-05	4.08E-07			0.00	NO	YES	6.73E-07	6.30E-07
75070	Acetaldehyde	0.00013	0.00013	4.50E+02	2.30E+03	5.00E+00	4.61E-03	2.42E-03	7.87E-05		0.00	0.00	YES	YES	1.30E-04	1.22E-04
120127	Anthracene	3.24E-07	3.24E-07		2.00E+01		1.15E-05	6.03E-06	1.96E-07			0.00	NO	YES	3.24E-07	3.03E-07
7440360	Antimony	< 3.020E-5	3.02E-05		5.00E+00		1.07E-03	5.62E-04	1.83E-05			0.01	NO	YES	3.02E-05	2.83E-05
7440382	Arsenic	3.82E-05	3.82E-05		1.00E-01	2.00E-03	1.35E-03	7.11E-04	2.32E-05			0.71	NO	YES	3.82E-05	3.58E-05
7440393	Barium	2.40E-05	2.40E-05		5.00E+00		8.50E-04	4.46E-04	1.45E-05			0.01	NO	YES	2.40E-05	2.25E-05
56553	Benzo (a) anthracene	< 9.760E-9	9.76E-09				3.46E-07	1.82E-07	5.91E-09				YES	#VALUE!	9.76E-09	9.14E-09
50328	Benzo (a) pyrene	3.54E-08	3.54E-08				1.25E-06	6.58E-07	2.14E-08				YES	#VALUE!	3.54E-08	3.31E-08
205992	Benzo (b) fluoranthene	< 1.590E-8	1.59E-08				5.63E-07	2.98E-07	9.63E-09				YES	#VALUE!	1.59E-08	1.49E-08
191242	Benzo (g,h,i) perylene	4.4055E-08	4.4055E-08		2.00E+01		1.56E-06	8.19E-07	2.67E-08			0.00	NO	YES	4.41E-08	4.12E-08
207089	Benzo (k) fluoranthene	< 1.420E-8	1.42E-08				5.03E-07	2.64E-07	8.60E-09				YES	#VALUE!	1.42E-08	1.33E-08
7440417	Beryllium	1.37E-06	1.37E-06		5.00E-04	4.00E-03	4.85E-05	2.55E-05	8.30E-07			5.10	NO	YES	1.37E-06	1.28E-06
7440439	Cadmium	2.21E-04	2.21E-04		2.00E-02	6.00E-03	7.81E-03	4.10E-03	1.34E-04			20.51	NO	YES	2.21E-04	2.06E-04
7440473	Chromium	2.99E-05	2.99E-05		5.00E+00		1.06E-03	5.56E-04	1.81E-05			0.01	NO	YES	2.99E-05	2.80E-05
18540299	Chromium (VI)	1.37E-05	1.37E-05		1.00E-01	8.00E-04	4.86E-04	2.55E-04	8.31E-06			0.26	NO	YES	1.37E-05	1.28E-05
218019	Chrysene	< 5.400E-8	5.40E-08				1.91E-06	1.00E-06	3.27E-08				YES	#VALUE!	5.40E-08	5.05E-08
7440484	Cobalt	6.65175E-06	6.6518E-06		2.00E-01		2.36E-04	1.24E-04	4.03E-06			0.06	NO	YES	6.65E-06	6.23E-06
7440508	Copper	2.74E-05	2.74E-05		2.00E+00		9.71E-04	5.10E-04	1.66E-05			0.03	NO	YES	2.74E-05	2.56E-05
53703	Dibenzo(a,h) anthracene	< 1.270E-8	1.27E-08				4.50E-07	2.36E-07	7.69E-09				YES	#VALUE!	1.27E-08	1.19E-08
206440	Fluoranthene	2.05E-07	2.05E-07		8.20E+01		7.26E-06	3.81E-06	1.24E-07			0.00	NO	YES	2.05E-07	1.92E-07
86737	Fluorene	4.17E-07	4.17E-07		2.00E+01		1.48E-05	7.76E-06	2.53E-07			0.00	NO	YES	4.17E-07	3.90E-07
50000	Formaldehyde	0.000034	0.000034		2.03E+01	8.00E-01	1.20E-03	6.32E-04	2.06E-05			0.00	NO	YES	3.40E-05	3.18E-05
7647010	Hydrogen chloride	2.70E-01	2.70E-01	2.98E+01	1.65E+02		9.55E+00	5.02E+00	1.63E-01		32.02	3.03	NO	YES	2.70E-01	2.52E-01
7664393	Hydrogen fluoride	6.55E-04	6.55E-04	1.64E+01	4.09E+00		2.32E-02	1.22E-02	3.97E-04		0.14	0.30	NO	YES	6.55E-04	6.13E-04
193395	Indeno(1,2,3-cd)pyrene	< 1.540E-8	1.54E-08				5.46E-07	2.86E-07	9.33E-09				YES	#VALUE!	1.54E-08	1.44E-08
7439921	Lead	6.62E-05	6.62E-05		5.00E-01		2.35E-03	1.23E-03	4.01E-05			0.25	NO	YES	6.62E-05	6.20E-05
7439976	Mercury	3.40E-03	3.40E-03	3.00E-01	1.00E-01		4.61E-01	6.32E-02	2.06E-03		153.53	63.24	NO	NO	3.40E-03	3.18E-03
7439987	Molybdenum	< 1.670E-5	1.67E-05		5.00E+00		5.92E-04	3.11E-04	1.01E-05			0.01	NO	YES	1.67E-05	1.56E-05
91203	Naphthalene	0.0000564	0.0000564	7.86E+02	5.24E+02		2.00E-03	1.05E-03	3.42E-05		0.00	0.00	YES	YES	5.64E-05	5.28E-05
7440020	Nickel	3.82E-05	3.82E-05		1.00E+00		1.35E-03	7.11E-04	2.31E-05			0.07	NO	YES	3.82E-05	3.58E-05
85018	Phenanthrene	2.29E-06	2.29E-06		9.80E+00		8.11E-05	4.26E-05	1.39E-06			0.00	NO	YES	2.29E-06	2.14E-06
129000	Pyrene	1.62E-07	1.62E-07		2.00E+01		5.74E-06	3.01E-06	9.81E-08			0.00	NO	YES	1.62E-07	1.52E-07
7782492	Selenium	< 4.360E-5	4.36E-05		2.00E+00		1.54E-03	8.11E-04	2.64E-05			0.04	NO	YES	4.36E-05	4.08E-05
7440224	Silver	7.30E-06	7.30E-06		1.00E-01		2.59E-04	1.36E-04	4.42E-06			0.14	NO	YES	7.30E-06	6.83E-06
7440280	Thallium	< 8.520E-5	8.52E-05		2.00E-01		3.02E-03	1.58E-03	5.16E-05			0.79	NO	YES	8.52E-05	7.97E-05
7440622	Vanadium	5.79E-05	5.79E-05		5.00E-01		2.05E-03	1.08E-03	3.51E-05			0.22	NO	YES	5.79E-05	5.42E-05
7440666	Zinc	3.53E-04	3.53E-04	1.00E+03	5.00E+02		1.25E-02	6.57E-03	2.14E-04		0.00	0.00	YES	YES	3.53E-04	3.30E-04
	PM, filterable	8.50E-02	8.50E-02				3.01E+00	1.58E+00	5.15E-02				NO	NO	8.50E-02	7.96E-02
	Polycyclic aromatic hydrocarbons (PAH)	3.76E-06	3.76E-06				1.33E-04	6.99E-05	2.28E-06				NO	NO	3.76E-06	3.52E-06
1746016	Total Dioxins & Furans - TEQ balanced		1.41E-09		8.20E-04		4.98E-08	2.62E-08	8.52E-10			0.00	NO	YES	1.41E-09	1.32E-09
Total TAP																3.37E-01 tpy

## **ATTACHMENT C**

### **CRITERIA AIR POLLUTANT CALCULATIONS FOR FORM 5EP 6. ESTIMATED EMISSIONS FROM THE EMISSION POINT**

# Calculation Of Emissions

## Estimated Emission Calculation

Matthews Environmental Solutions  
Crematory Incinerator Model IE43-PPII Plus

Total Incenerator Burn Capacity 175 lb/hr of remains (type 4) and associated containers (type 0)  
Flue gas flow rate = 1175 dscfm 10 Hours/Day X 6 Days/Week X 52 Weeks/Year  
( 100 % Excess Air) = 3120 Hours/Year

**Total Emission Rate = Incinerator Burn Rate X Emission Factor**

### Sulfur Dioxide (SO<sub>2</sub>)

$$\begin{array}{rcl} \frac{175 \text{ lb/hr X } 2.17 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} & = & 0.190 \text{ lb/hr} \\ & = & 0.2962 \text{ TPY} \\ \frac{0.189875 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{f}^3 \text{ X } 2.61 \text{ mg/m}^3} & = & 16.55 \text{ ppmv} \end{array}$$

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

$$\begin{array}{rcl} \frac{175 \text{ lb/hr X } 3.56 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} & = & 0.3115 \text{ lb/hr} \\ & = & 0.4859 \text{ TPY} \\ \frac{0.3115 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{f}^3 \text{ X } 1.88 \text{ mg/m}^3} & = & 38.11 \text{ ppmv} \end{array}$$

### Hydrocarbons (TOC/VOC - methane)

$$\begin{array}{rcl} \frac{175 \text{ lb/hr X } 2.99\text{E}-01 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} & = & 0.0262 \text{ lb/hr} \\ & = & 0.0408 \text{ TPY} \\ \frac{0.0261625 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.0283 \text{ m}^3/\text{f}^3 \text{ X } 0.65 \text{ mg/m}^3} & = & 9.16 \text{ ppmv} \end{array}$$

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

$$\begin{array}{rcl} \frac{175 \text{ lb/hr X } 4.67 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} & = & 0.4086 \text{ lb/hr} \\ & = & 0.6375 \text{ TPY} \\ \frac{0.408625 \text{ lb/hr X } 7.00\text{E}+03 \text{ gr/lb X }}{1175 \text{ dscfm X } 60 \text{ min/hr}} & = & 0.04 \text{ gr/dscf} \end{array}$$

### Carbon Monoxide (CO)

$$\begin{array}{rcl} \frac{175 \text{ lb/hr X } 2.95 \text{ lb/ton X } 1 \text{ ton}}{2000 \text{ lbs}} & = & 0.2581 \text{ lb/hr} \\ & = & 0.4027 \text{ TPY} \\ \frac{0.258125 \text{ lb/hr X } 4.54\text{E}+05 \text{ mg/lb X } 1 \text{ ppmv}}{1175 \text{ dscfm X } 60 \text{ min/hr X } 0.028 \text{ m}^3/\text{f}^3 \text{ X } 1.14 \text{ mg/m}^3} & = & 52.08 \text{ ppmv} \end{array}$$

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.

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**ATTACHMENT D**

**GHG CALCULATIONS**

**FOR FORM 5EP 6. ESTIMATED EMISSIONS FROM THE EMISSION POINT**



## Calculation Of GHG Emissions

### Potential to Emit

Matthews Cremation Division (MCD)

Type Of Gas:	Nat Gas	
Gas Heating Value:	1,000	Btu/cf
Heat Input Capacity of Cremation Unit:	3.00E+06	Btu/hr

$$\text{Potential Throughput (cf / yr)} = \text{Heat Input Capacity (MMBtu/hr)} \times (\text{total hrs/yr}) \times (1 / \text{Gas Heating Value})$$
$$= 3.00\text{E}+06 \text{ Btu/hr} \times 3120 \text{ hrs/yr} \times \frac{1 \text{ cf/Btu}}{1,000} = 9360000 \text{ cf/yr}$$

$$\text{GHG (TPY)} = \text{Emission Factor (lb/E6 cf)} \times \text{Potential Throughput (cf/yr)} \times (1 \text{ ton}/2000 \text{ lbs})$$

#### Carbon Dioxide (CO2)

$$\frac{120000 \text{ lb}}{1.00\text{E}+06 \text{ cf}} \times \frac{9360000 \text{ cf}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 561.6 \text{ TPY}$$

#### Nitrous Oxide (N2O)

$$\frac{2.2 \text{ lb}}{1.00\text{E}+06 \text{ cf}} \times \frac{9360000 \text{ cf}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.010296 \text{ TPY}$$

#### Methane (CH4)

$$\frac{2.3 \text{ lb}}{1.00\text{E}+06 \text{ cf}} \times \frac{9360000 \text{ cf}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.010764 \text{ TPY}$$

$$\text{CO2e (TPY)} = (\text{CO2 TPY} \times \text{CO2 GWP}) + (\text{N2O TPY} \times \text{N2O GWP}) + (\text{CH4 TPY} \times \text{CH4 GWP})$$

$$= 561.6 \times 1 + 0.010296 \times 310 + 0.010764 \times 21$$
$$= 565.017804 \text{ TPY}$$

#### Fluorinated Gases (i.e. Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) - N/A

Notes:

1. GWP values from Table A-1 of 40CFR 98, Subpart A
2. Gas CO2, N2O, CH4 emission factors based from AP42 Table 1.4-2 or Table 1.5-1

**ATTACHMENT E**

**Mr. BRANDON M. WYLIE/UNIT 01 CREMATORIUM**

**LOCATION MAP & SITE DETAILS**

**WYLIE FUNERAL HOMES PA PROPERTY LINE  
(Mr. BRANDON M. WYLIE/UNIT 01  
CREMATORIUM LOCATION AND LOCATION COORDINATES**



Red line = property line

Green line = new building housing the crematorium

Yellow line = location of the crematorium in the new building

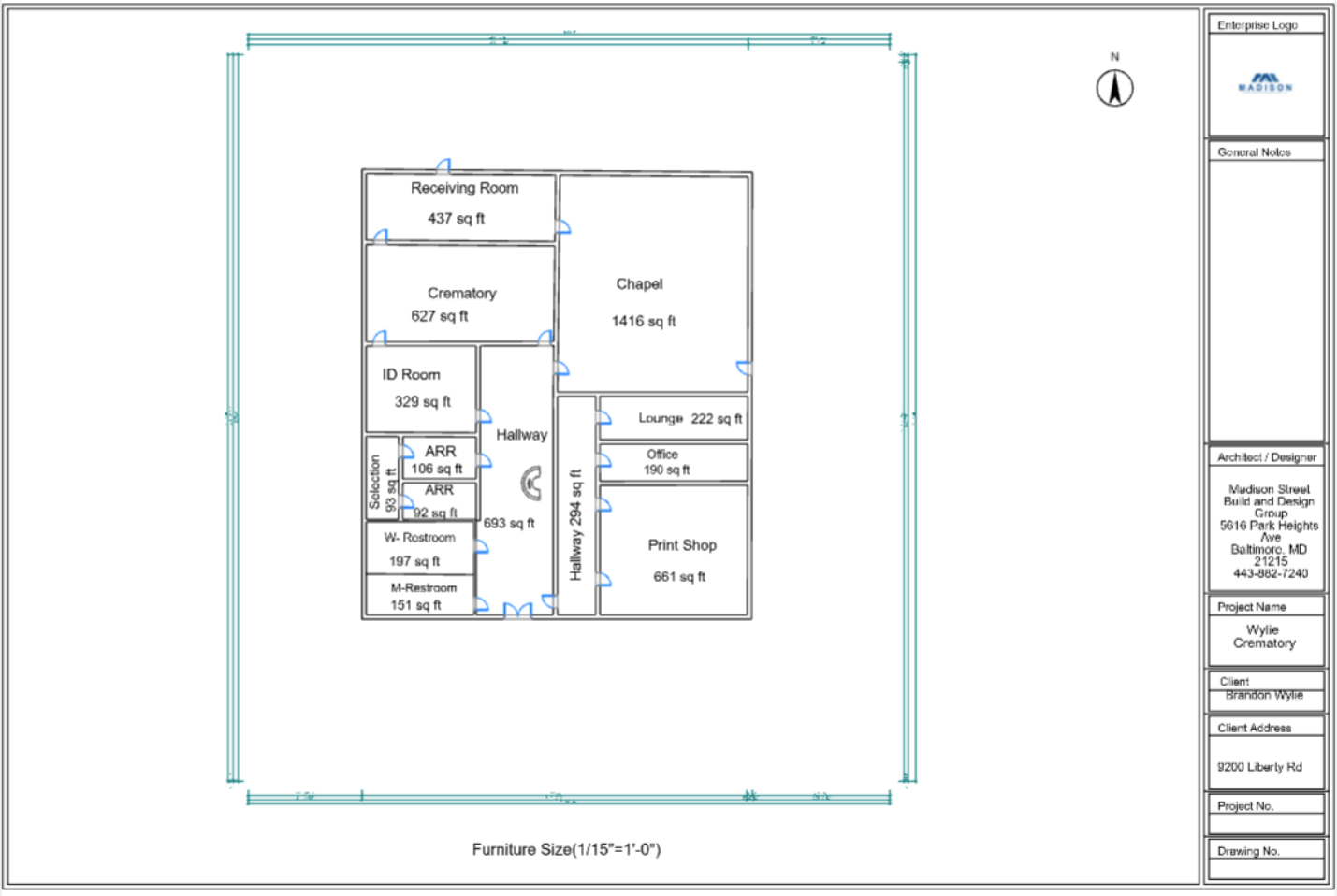
Coordinates of the crematorium location

= 39°22'17.74" N 76°48'13.03" W



[illegible]

ARCHITECTURAL DRAWING OF THE PROPOSED CREMATORIUM BUILDING



## **ATTACHMENT F**

### **CREMATORIUM SPECIFICATIONS & PROCESS FLOW DIAGRAM**

# PowerPak II PLUS

## A Higher Standard

- Designed for 6 Cremations Per Day
- 100 minutes or Less Cremation Time
- Secondary Chamber Volume: 96 Cu. Ft.
- Oversize 43" Door For Maximum Load Capacity



\*PowerPak II PLUS shown with optional EX-1 Design Upgrade, and remote operation via included Android tablet.

The Future Of Cremation

**M** Matthews®  
ENVIRONMENTAL SOLUTIONS



# High-Tech Productivity

## For Small And Mid-Sized Crematories

The PowerPak II PLUS delivers industry-leading technology and the extra capacity you need to grow your business. Featuring a larger secondary chamber and faster cremation times than our basic cremation system, the PowerPak II PLUS is perfect for businesses that perform up to 6 cremations per day.

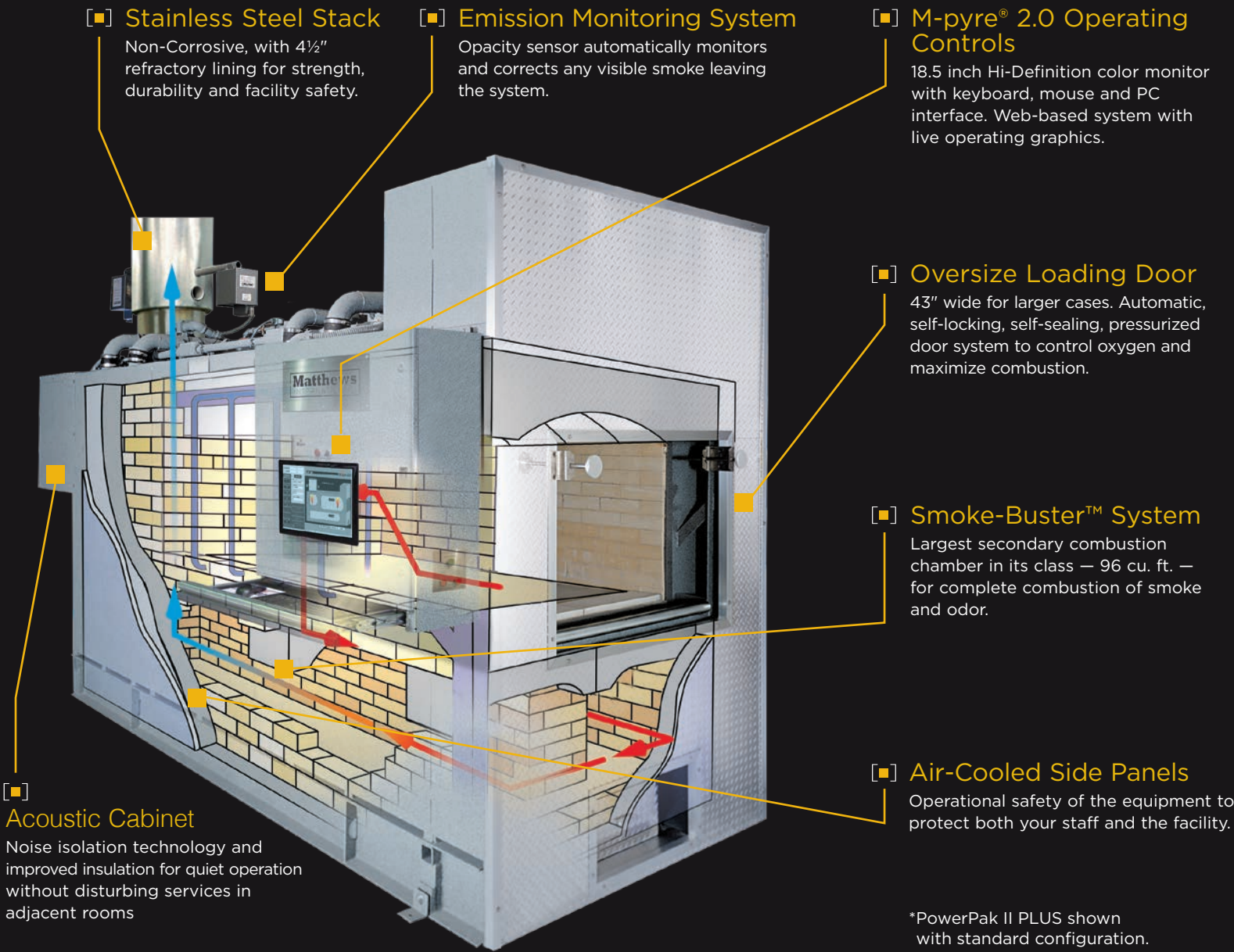
### Ready To Go

The PowerPak II PLUS arrives at your doorstep ready to go. It comes pre-wired, pre-piped, and pre-tested. All you have to do is unload it, connect it to gas and electricity, and attach the exhaust stack. As always, our team is available to help you prepare your site so installation is quick and easy.



## M-pyre® Makes A Tough Job Easy

Managing the operation of your cremation equipment has never been easier! Our intuitive logic control system allows you to answer four basic questions prior to starting the cremation cycle and your equipment is automatically set for maximizing operating conditions. It features remote capabilities that let you monitor your crematory activity, create instant performance reports and communicate with Matthews technical support via the Internet from anywhere in the world. Matthews service team can stay connected to your machine 24/7 to provide peace of mind and instant support. We are with you every step of the way.



## The Future Of Cremation: Matthews Gives You More

Matthews is redefining the future of cremation. We offer a powerful partnership that gives you access to our global resources and combines all of our engineering talents. With more than 100 of years of experience and 4,500 installations in over 50 countries, we are the most trusted brand in cremation technology and service. Count on Matthews to help build your business for both today's challenges and tomorrow's opportunities. Visit us at [MatthewsCremation.com](http://MatthewsCremation.com).

## The Power Of Partnership

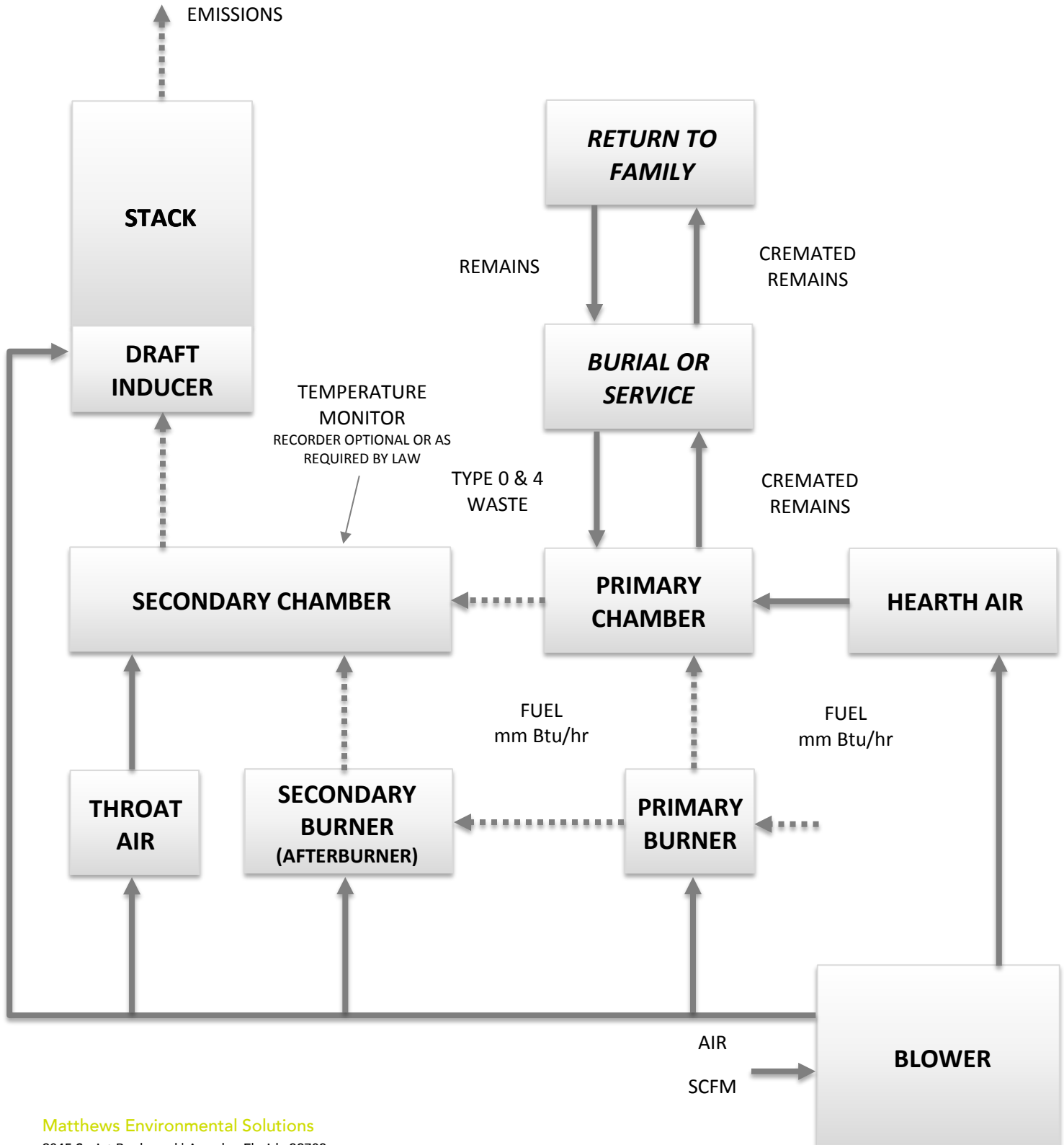
- Financial ROI Analysis
- Zoning and Permitting Support
- Operator Training and Certification
- 24/7 Customer Service and Support
- Custom Engineering and Design
- Facility Layout and Design
- Crematory Accessories and Supplies
- Leasing and Financing Options
- Turn-Key Installation

## PowerPak II PLUS Specifications

Overall Height:	9' (2.74 m)
Overall Width:	5' 9" (1.75 m)
Overall Length:	14' 10.5" (4.53 m)
Weight:	28,000 lb. (12,700.586 kg)
Fuel:	Natural or L.P. Gas (Oil available)
Electrical:	230 volts, 1-phase/3-phase







Matthews Environmental Solutions

2045 Sprint Boulevard | Apopka, Florida 32703

O: 407-886-5533 | F: 407-886-5990 | [www.matthewsenviromentalsolutions.com](http://www.matthewsenviromentalsolutions.com)

## SPECIFICATIONS- Model Power-Pak II Plus

1. Equipment Type..... Model Power-Pak II Plus
  - A. Model No. .... IE43-PPII Plus
  - B. Underwriters Laboratories Listing and File No. .. 87E8; MH14647
2. Dimensions
  - A. Footprint ..... 12' – 9 ½ " x 5' - 9" (3.9 m x 1.8 m)
  - B. Maximum Length..... 14' – 10 ½ " (4.53 m)
  - C. Maximum Width ..... 6' -10" (2.08 m)
  - D. Maximum Height ..... 9' (2.74 m)
  - E. Chamber Loading Opening ..... 30 ¾ " H x 43 ½ " W (781 mm x 1105 mm)
3. Weight ..... 28,000 lbs. (12,700 kg)
4. Utility/Air Requirements
  - A. Gross Gas Input, Natural or LP Gas..... 3,000,000 BTU/hr. (3,165,168 kJ/h)
  - Running Gas Pressure, LP or Natural Gas ..... 11 inches (279.4 mm) water column or greater
  - B. Electrical Supply..... 230 volt, 3Ø or 1Ø, 50/60 hz (others available)
  - C. Air Supply..... 2,500 cfm (70.8 standard m<sup>3</sup>/min)
5. Incineration Capacity ..... 175 lbs./hr. (79 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..... 4 1/2" (110 mm) insulating firebrick or castable
  - B. Outer Wall..... 12 gauge (3 mm) sheet, Stainless Steel, welded seams (unlined stack available)
10. Draft Nozzle Construction ..... Schedule 40 Stainless Steel pipe with 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 II Plus

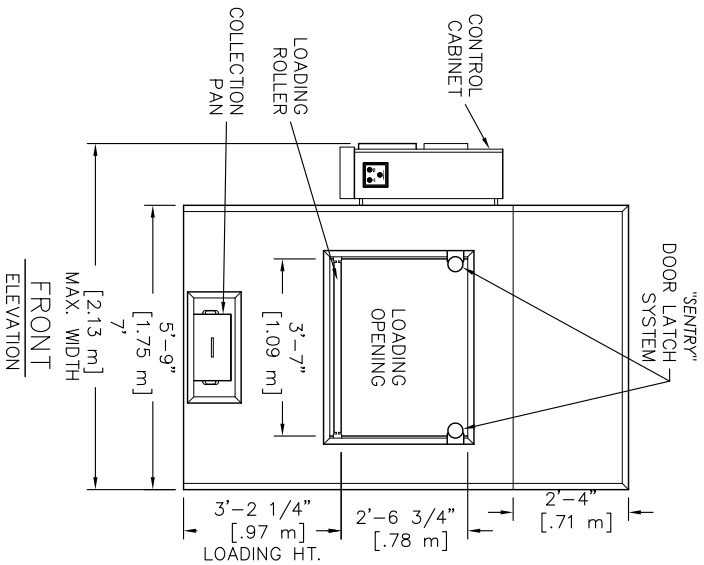
12. Primary Chamber Wall Construction
  - A. Outer Casing Wall ..... 12 gauge (3 mm) sheet
  - B. Inner Frame/Air Compartment..... 2" (51 mm) air compartment
  - C. Inner Casing Wall..... 12 gauge (3 mm) sheet
  - D. Outer Refractory Wall..... 5" (127 mm) insulating block
  - E. Inner Refractory Wall ..... 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 ..... 3,100° F. (1704° 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 ..... 70 cubic feet (2.12 m<sup>3</sup>)
  - B. Secondary Chamber ..... 96 cubic feet (2.72 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 by Env. agency)
  
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 II Plus

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. Cremation Burner On ..... Included
  - F. Low Fire Cremation Burner On..... Included
  - G. Afterburner (Secondary Burner) Reset ..... Included
  - H. Cremation Burner Reset..... Included
  - I. Hearth Air..... Included
  - J. Throat Air Off ..... Included

## SPECIFICATIONS- Model Power-Pak II Plus

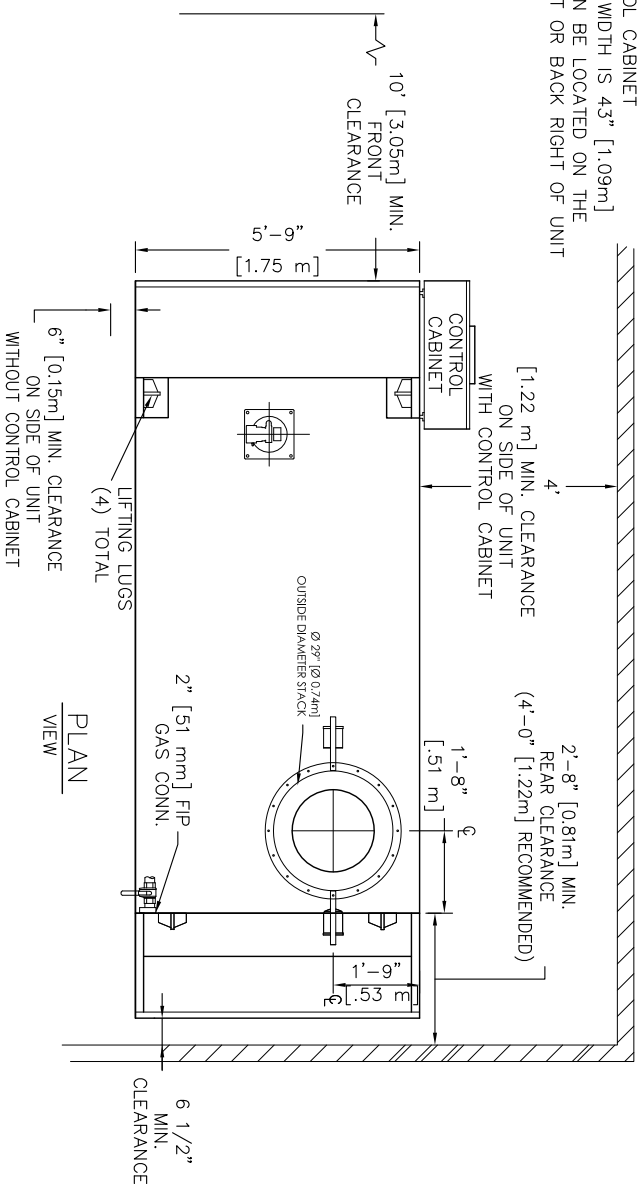
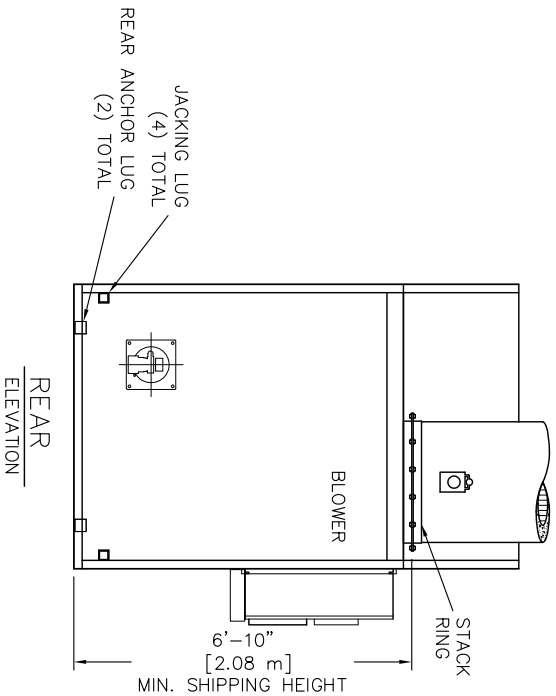
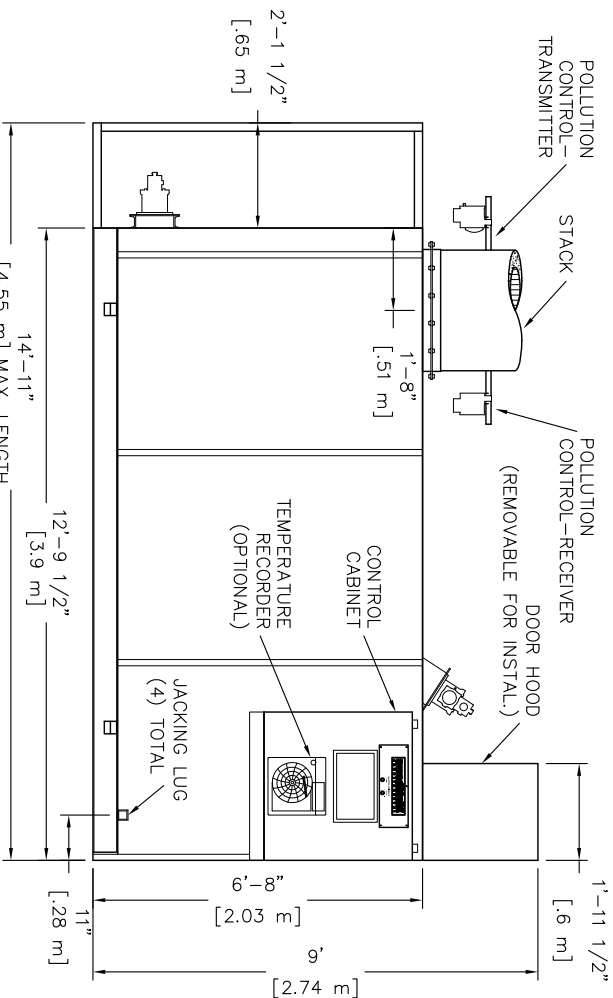
24. Automatic Timer Functions
- A. Master Cycle ..... Included
  - B. Afterburner (Secondary Burner) ..... Included
  - C. Cremation Burner ..... Included
  - D. Low Fire Cremation Burner ..... Included
  - E. Hearth Air ..... Included
  - F. Throat Air ..... Included
  - G. Pollution Monitoring ..... Included
  - H. Afterburner (Secondary Burner) Prepurge ..... Included
  - I. Cremation Burner Prepurge ..... Included
  - J. Cool Down ..... Included
25. Exterior Finish
- A. Primer ..... 2 coats rust inhibiting
  - B. Finish ..... 2 coats textured finish
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 REMOTELY
- 2) MAIN ELECTRICAL CONNECTION LOCATED IN CONTROL CABINET
- 3) CHAMBER WIDTH IS 43" [1.09m]
- 4) STACK CAN BE LOCATED ON THE BACK LEFT OR BACK RIGHT OF UNIT

LEFT SIDE ELEVATION



**Matthews**

ENVIRONMENTAL SOLUTIONS

2045 Sprint Boulevard  
Apopka, Florida 32703  
USA

POWER-PAK II PLUS

PLAN & ELEVATIONS INCL: CLEARANCES,

REQUIREMENTS & RECOMMENDATIONS

DRAWN BY:	JG	DATE:	02.26.2015	REVISION:	
APPROVED BY:	-	DATE:	07.21.2017	REVISION:	1 REMOVE MAIN ELEC FROM TOP OF UNIT
SCALE:	1/4" = 1'-0"	SHEET:	2	09.20.2017	CHANGED MIN. FRONT CLEAR. TO 10'
DWG FILE:					
DWG NUMBER:	\$ (GETVAR,??)				

CREMATOR CLEARANCES

RECOMMENDED	MINIMUM
TOP: ② CABINET SIDE: 4 FEET OTHER SIDE: 2 FEET FRONT: 10+ FEET REAR: 4 FEET STACK: 6 INCHES	[610 mm] [152 mm] 4 FEET [1,22 m] 6 INCHES [152 mm] 10 FEET [3,05 m] 32 INCHES [812 mm] 6 INCHES [152 mm]
1. FOR CLEARANCES OTHER THAN THOSE SHOWN, OR FOR SPECIAL REQUIREMENTS, CONSULT YOUR MES REP.	
② FROM HIGHEST POINT ON UNIT.	
3. CONTROL CABINET MOUNTS ON UNIT'S LEFT OR RIGHT SIDES, OR REMOTELY. (SEE PLAN VIEW, SHEET 1).	
4. REAR OF UNIT REFERS TO THE "BACK PLATE", RATHER THAN THE BACK OF THE "WHISPERSHIELD". (SEE PLAN VIEW, SHEET 1).	

CREMATOR REQUIREMENTS

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

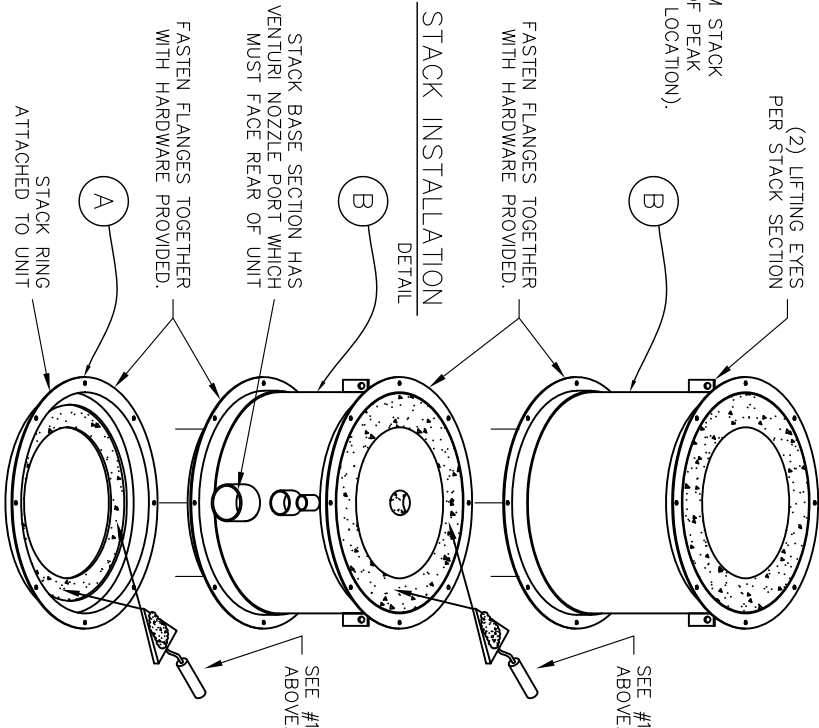
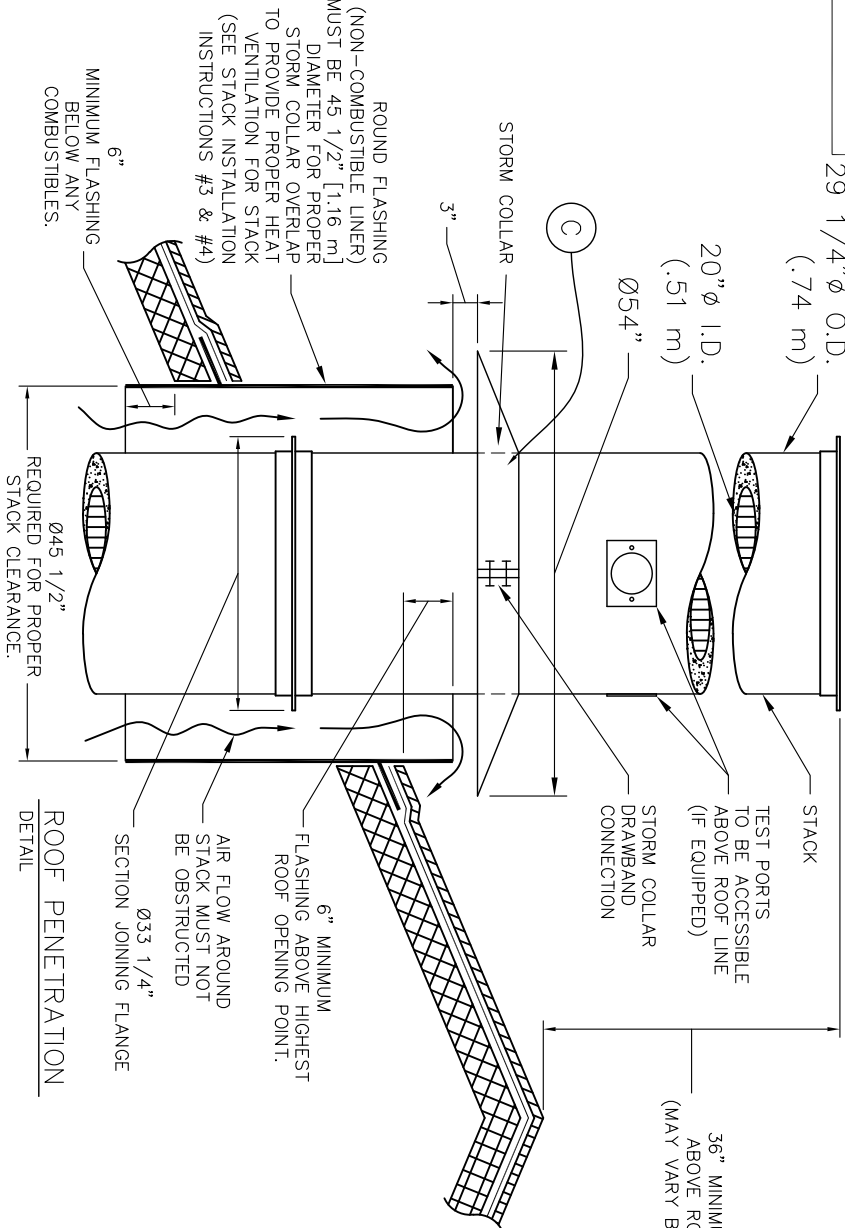
CAPACITY: 3.0 MILLION BTU/HR [3.1 MILLION KILOJOULES/HR]

ELECTRICAL: 230 VOLT, 3Ø, (40A BREAKER) AND 115v (10A BREAKER), OR 230 VOLT, 1Ø, (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

1. APPLY A 1/2" THICK MORTAR JOINT TO EXPOSED REFRACTORY SURFACE IN STACK RING. LOWER THE BASE STACK SECTION ② ONTO STACK RING ① 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.
2. INSTALL STORM COLLAR ON STACK, 3" [76 mm] ABOVE NON-COMBUSTIBLE LINER (FLASHING), ALLOWING FOR PROPER VENTILATION (SEE DETAIL).
3. APPLY A 1/4" [6 mm] BEAD OF HIGH-TEMPERATURE SILICON SEALANT (PROVIDED BY MES) TO THE JOINT BETWEEN THE STORM COLLAR ③ AND THE STACK ②.
4. STORM COLLAR IS FURNISHED BY MES. THE NON-COMBUSTIBLE LINER (FLASHING) TO BE PROVIDED BY THE OTHERS.
5. IF FIFTY PERCENT OF THE STACK LENGTH IS ABOVE THE ROOF, GUY WIRES MAY BE REQUIRED. CONSULT WITH YOUR MES REP.
6. RAIN CAP NOT REQUIRED.



**CREMATOR MASS BALANCE**  
**Matthews Environmental Solutions**  
**PPII Plus**

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	165

**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**

$$\text{FROM CHART ABOVE} = 0.95 \text{ LB/LB BURNED}$$

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

$$= 7.33 \text{ LB/LB BURNED}$$

**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**

$$\text{FROM CHART ABOVE} = 0.95 \text{ LB/LB BURNED}$$

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

$$= 1.70 \text{ LB/LB BURNED}$$

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)	96
SEC. CHAMB. CROSS-SECTIONAL AREA (SQ. FT)	2.76
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**

$$1000000 \text{ BTU/HR} \times 4.8\text{E-}05 \text{ LBS/BTU} = 48 \text{ LBS/HR}$$

**B. COMBUSTION AIR FOR PRIMARY BURNER**

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

**C. MAXIMUM SECONDARY BURNER GAS USAGE**

$$1200000 \text{ BTU/HR} \times 4.8\text{E-}05 \text{ LBS/BTU} = 58 \text{ LBS/HOUR}$$



**D. COMBUSTION AIR FOR SECONDARY BURNER**

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

**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)**

$$1.70 \text{ LBS/LB WASTE} \times 165 \text{ LB/HR BURN RATE} = 281 \text{ LBS/HOUR}$$

**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**

$$= \underline{\underline{3009 \text{ LBS/HOUR}}}$$

**2. VELOCITY AND TIME CALCULATIONS**

**A. SCFM CALCULATION**

(PRODUCTS ASSUMED TO HAVE DENSITY CLOSE TO AIR)

$$3009 \text{ LBS/HR} \times \frac{13.35 \text{ STD. CU. FT/LB}}{60 \text{ MIN/HR}} = 670 \text{ SCFM}$$

**B. TOTAL PRODUCTS ACFM @ 1600 °F**

$$\frac{2060 \text{ °RANKINE}}{530 \text{ °RANKINE}} \times 669.6 \text{ CFM} = 2603 \text{ ACFM}$$

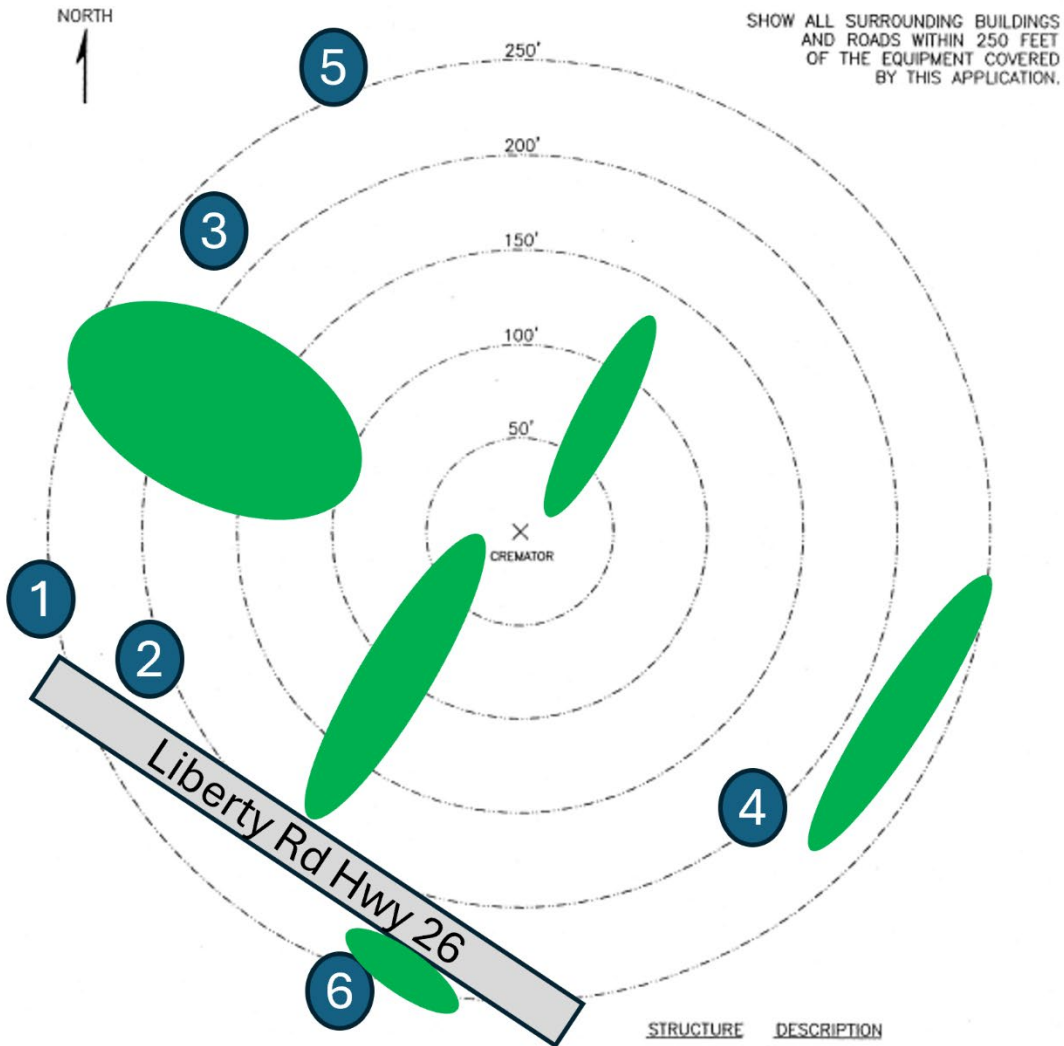
**C. RETENTION TIME**

$$\frac{96 \text{ CU. FT}}{2603 \text{ ACFM}} \times \frac{60 \text{ SECONDS}}{1 \text{ MINUTE}} = 2.21 \text{ SECONDS}$$

**ATTACHMENT G**

**PLOT OF LAND USE WITHIN 250 ft OF THE CREMATORIUM**

## PLOT PLAN OF LAND USE WITHIN 250 ft OF THE CREMATORIAL



### 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.

### STRUCTURE DESCRIPTION

- |      |                            |
|------|----------------------------|
| (1)  | One Story Residential Home |
| (2)  | One Story Residential Home |
| (3)  | Two Story Residential Home |
| (4)  | Wylie Funeral Home PA      |
| (5)  | Two Story Residential Home |
| (6)  | One Story Residential Home |
| (7)  |                            |
| (8)  |                            |
| (9)  |                            |
| (10) |                            |

Woods

**ATTACHMENT H**  
**EVIDENCE OF WORKERS COMP**

**SELECTIVE**  
**INSURANCE®**

**POLICY DOCUMENT**

**WC 9146923**

**INSURED'S COPY**

SELECTIVE INSURANCE  
BRANCHVILLE, NEW JERSEY 07890

# POLICY SCHEDULE

ISSUE DATE: 01/03/2025

Policy No WC 9146923	Issued To WYLIE FUNERAL HOME PA	
Period 02/01/2025 02/01/2026	Transaction Type RENEWAL	Agent Number 00-03753-00000
Billing Type DIRECT BILL	Transaction Eff. Date 02/01/2025	Number of Remaining Installments 12

BILL ACCOUNT: 519 006 472

PAYMENT WILL BE BILLED AS FOLLOWS:

	SCHEDULED BILL DATE	SCHEDULED DUE DATE	PREMIUM AMOUNTS
01.	01/13/2025	02/02/2025	438.00
02.	02/10/2025	03/02/2025	438.00
03.	03/13/2025	04/02/2025	438.00
04.	04/11/2025	05/02/2025	438.00
05.	05/13/2025	06/02/2025	438.00
06.	06/12/2025	07/02/2025	438.00
07.	07/13/2025	08/02/2025	438.00
08.	08/13/2025	09/02/2025	438.00
09.	09/12/2025	10/02/2025	438.00
10.	10/13/2025	11/02/2025	438.00
11.	11/12/2025	12/02/2025	438.00
12.	12/12/2025	01/02/2026	444.00
		TOTAL	\$5,262.00

THIS IS NOT A BILL.

Your bill will be sent under separate cover. This is a Payment Schedule of your policy premium due based on your selected installment plan. Changes made to the policy premium after the issue date listed above, will be reflected on future bills.

An installment fee of \$8.00 may be added to each installment bill. Policies not paid by the installment due date are subject to a late fee of \$10.00 for each late payment. An insufficient fund fee of \$30.00 will be charged for payments returned by your financial institution.

MISC-1591 (02/16)

INSURED'S COPY

100000WC 9146923559