MARYLAND DEPARTMENT OF THE ENVIRONMENT

AIR AND RADIATION ADMINISTRATION
APPLICATION FOR A PERMIT TO CONSTRUCT

DOCKET #15-23

COMPANY: Journey Pet Services

LOCATION: 10800 Laurel Hill Drive
Frostburg, Maryland 21532

APPLICATION: Installation of one (1) pet crematory

ITEM	DESCRIPTION
1	Notice of Application and Opportunity to Request an Informational Meeting
2	Environmental Justice (EJ) Information - EJ Fact Sheet and MDE Score and Screening Report
3	Permit to Construct Application Forms - Form 5, Form 6, Form 10, Form 5EP; Evidence of Workman's Compensation Insurance; Material balance data and emissions calculations, testing data and modeling report
4	Zoning Approval

DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION

NOTICE OF APPLICATION AND
OPPORTUNITY TO REQUEST AN INFORMATIONAL MEETING

The Maryland Department of the Environment, Air and Radiation Administration (ARA) received a permit-to-construct application from Journey Pet Services on August 29, 2023, for a pet crematory. The proposed installation will be located at 10800 Laurel Hill Drive, Frostburg, Maryland 21532.

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 using the Maryland EJ mapping tool. The EJ Score, expressed as a statewide percentile, was shown to be 27.9%, which the Department has verified. This score considers three demographic indicators, minority population above 50%, poverty rate above 25% and limited English proficiency above 15%, to identify underserved communities. Multiple environmental health indicators are used to identify overburdened communities.

Copies of the application, the EJ mapping tool screening report (which includes the score), and other supporting documents are available for public inspection on the Department's website at https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/index.aspx (click on Docket Number 15-23). Any applicant-provided information regarding a description of the indicators contributing to that 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, the Department will hold an informational meeting to discuss the application and the permit review process if the Department receives a written request for a meeting within 10 working days from the date of the second publication of this notice. A requested informational meeting will be held virtually using teleconference or internet-based conferencing technology unless a specific request for an in-person informational meeting is received. All requests for an informational meeting should be directed to the attention of Ms. Shannon Heafey, Air Quality Permits Program by email to shannon.heafey@maryland.gov or by mail to the Air and Radiation Administration, 1800 Washington Boulevard, Baltimore, Maryland 21230.

Further information may be obtained by calling Ms. Shannon Heafey at 410-537-4433.

Christopher R. Hoagland, Director
Air and Radiation Administration

Maryland
Department of
the Environment

The Applicant's Guide to Environmental Justice and Permitting

What You Need to Know

This fact sheet is designed to provide guidance to applicants on incorporating environmental justice screening requirements pursuant to House Bill 1200, effective October 1, 2022.

What is Environmental Justice?

The concept behind the term environmental justice (EJ) is that regardless of race, color, national origin, or income, all Maryland residents and communities should have an equal opportunity to enjoy an enhanced quality of life. How to assess whether equal protection is being applied is the challenge.

Communities surrounded by a disproportionate number of polluting facilities puts residents at a higher risk for health problems from environmental exposures. It is important that residents who may be adversely affected by a proposed source be aware of the current environmental issues in their community in order to have meaningful involvement in the permitting process. Resources may be available from government and private entities to ensure that community health is not negatively impacted by a new source located in the community.

Extensive research has documented that health disparities exist between demographic groups in the United States, such as differences in mortality and morbidity associated with factors that include race/ethnicity, income, and educational attainment. House Bill 1200 adds to MDE's work incorporating diversity, equity and inclusion into our mission to help overburdened and underserved communities with environmental issues.

What is House Bill 1200 and what does it require?

Effective October 1, 2022, House Bill 1200 requires a person applying for a permit from the Department under §1-601 of the Environment Article of the Annotated Code of Maryland or any permit requiring public notice and participation to include in the application an EJ Score for the census tract where the applicant is seeking the permit; requiring the Department, on receiving a certain permit application to review the EJ Score; and requiring notices to include information related to EJ Scores and generally relating to environmental permits and environmental justice screenings.

What is a "Maryland EJ Tool"?

The term "Maryland EJ Tool" means a publicly available state mapping tool that allows users to: (1) explore layers of environmental justice concern; (2) determine an overall EJ score for census tracts in the state; and (3) view additional context layers relevant to an area. The MDE EJ Screening Tool is considered a Maryland EJ Tool.

What is an "EJ Score"?

The term "EJ Score" means an overall evaluation of an area's environment and environmental justice indicators, as defined by MDE in regulation, including: (1) pollution burden exposure; (2) pollution burden environmental effects; (3) sensitive populations; and (4) socioeconomic factors.

The MDE EJ Screening Tool considers three demographic indicators, minority population above 50%, poverty rate above 25% and limited English proficiency above 15%, to identify underserved communities, and multiple environmental health indicators to identify overburdened communities. The tool uses these indicators to calculate a

Final EJ Score Percentile, statewide. It is that score, linked to the census tract where the project is to be located, that needs to be reported to MDE as part of your permit application.

What does the application require?

The link for the MDE EJ Screening Tool is located on the Department's website, www.mde.maryland.gov. Click on the Environmental Justice header at the top of the Department's home page, then select EJ Screening Tool from the menu on the left. Click on Launch the EJ Screening Tool. After you open the tool, click okay on the opening screen. At the top right, please click the first button for the MDE Screening Report. Input the address of the proposed installation in the address bar. Click on the Report button. Once the report has been generated select the print icon and save it in a .pdf format.

The applicant needs to include the MDE Screening Report with the EJ Score from the MDE EJ Screening Tool as part of the permit application upon submission. An application will not be considered complete without the report.

The applicant is encouraged to provide the Department with a discussion about the environmental exposures in the community. This will provide pertinent information about how the applicant should proceed with engaging with the community. Residents of a community with a high indicator score and a high degree of environmental exposure should be afforded broader opportunities to participate in the permit process and understand the impacts a project seeking permit approval may have on them.

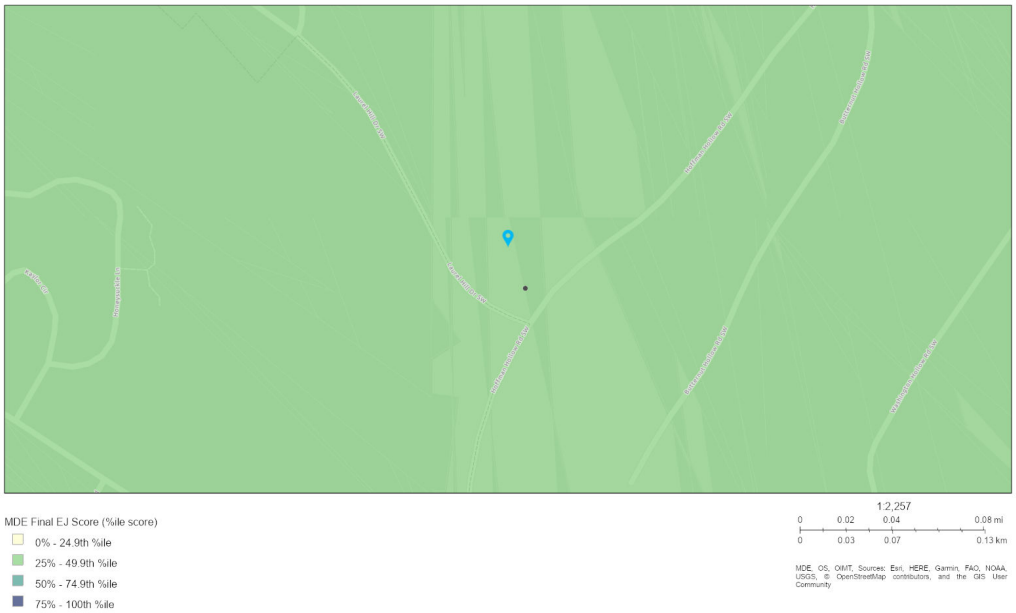
Questions

For air quality permits, please call 410-537-3230.
For water permits, please call 410-537-4145.
For land permits pertaining to Solid Waste, please call 410-537-3098. For land permits pertaining to Oil Control, please call 410-537-3483.
For land permits pertaining to Animal Feeding Operations, please call 410-537-4423.
For land permits pertaining to Biosolids, please call 410-537-3403.

MDE Screening Report

Area of Interest (AOI) Information

Oct 3 2023 14:14:56 Eastern Daylight Time



Summary

Name	Count	Area(mi²)	Length(mi)
MDE Final EJ Score (%ile score)	1	N/A	N/A
Overburdened Communities Combined Score	1	N/A	N/A
Overburdened Pollution Environmental Score (%ile score)	1	N/A	N/A
Overburdened Exposure Score (%ile score)	1	N/A	N/A
Overburdened Sensitive Population (%ile score)	1	N/A	N/A
Socioeconomic/Demographic Score 2020 (Percentile score) (Underserved Community)	1	N/A	N/A
Air Emissions Facilities	0	N/A	N/A
Sulfur Dioxide (2010)	0	N/A	N/A
Ozone (2015)	1	N/A	N/A
Fine Particles (2012)	1	N/A	N/A
Biosolids FY 2020 and Current Permit Details	0	N/A	N/A
Biosolids FY2010 - 2014 Permit Details	0	N/A	N/A
Biosolids FY2009 Expired Permit Details	0	N/A	N/A
Biosolids FY 2020 and Current Permits Distribution By Acreage	1	N/A	N/A
Biosolids FY2015 - 2019 Permits Distribution By Acreage	1	N/A	N/A
Biosolids FY2010 - 2014 Permits Distribution By Acreage	1	N/A	N/A
Biosolids FY2009 Permits Expired Distribution By Acreage	1	N/A	N/A
Biosolids FY 2020 and Current Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2015 - 2019 Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2010 - 2014 Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2009 Expired Permit Distribution By Percent Coverage	1	N/A	N/A
Concentrated Animal Feeding Operations (CAFOs)	0	N/A	N/A
Composting Facilities	0	N/A	N/A
Food Scrap Acceptors	0	N/A	N/A
Landfills	0	N/A	N/A
Correctional Facilities	0	N/A	N/A
Industrial Food Suppliers	0	N/A	N/A
Residential Colleges	0	N/A	N/A
Non-Residential Colleges	0	N/A	N/A
Hospitals	0	N/A	N/A
High Schools	0	N/A	N/A
Grocery Stores	0	N/A	N/A
10 Miles from Landfill	2	N/A	N/A
10 Miles from Composting Facility	1	N/A	N/A
General Composting Facilities Tier 2 (MD)	0	N/A	N/A
Commercial Anaerobic Digester (MD)	0	N/A	N/A
Out of State Facilities	0	N/A	N/A
30 mile buffer (Maryland)	0	N/A	N/A
30 Mile Buffer (Out of State)	1	N/A	N/A
Land Restoration Facilities	0	N/A	N/A
Determinations (points)	0	N/A	N/A
Determinations (areas)	0	N/A	N/A
Entities	0	N/A	N/A
Active Coal Mine Sites	0	N/A	N/A
Historic Mine Facilities	0	N/A	N/A

All Permitted Solid Waste Acceptance Facilities	0	N/A	N/A
Municipal Solid Waste Acceptance Facilities	0	N/A	N/A
Maryland Dam Locations	0	N/A	N/A
Maryland Pond Locations	0	N/A	N/A
Surface Water Intakes	0	N/A	N/A
Wastewater Discharge Facilities	0	N/A	N/A
Drinking Water	0	N/A	N/A
Clean Water	0	N/A	N/A

MDE Final EJ Score (%ile score)

#	Census tract identifier	Geographic Area Name	Total Population	Final EJ Score Percent (for this tract)	Final EJ Score Percentile (Distribution across Maryland)	Area(mi²)
1	24001001700	Census Tract 17, Allegany County, Maryland	4278	25.95	27.89	N/A

Overburdened Communities Combined Score

#	GEOID20	Geographic_Area_Name	TotalPop	Overburd_Exposure_Percent	Overburd_Exposure_Percentile	Overburd_Poll_Enviro_Percent	Overburd_Poll_Enviro_Percentile	Sensitive_Population_Percent
1	24001001700	Census Tract 17, Allegany County, Maryland	4,278	31.69	1.03	5.99	39.92	66.95

#	Sensitive_Population_Percentile	OverburdenedAllPercent	OverburdenedAllPercentile	Area(mi²)
1	66.58	37.73	50.17	N/A

Overburdened Pollution Environmental Score (%ile score)

#	GEOID20	Geographic_Area_Name	RentalsOccupiedPre79Percent	Percentile	PercentRMP	PercentRMPEJ	PercentHazWaste	PercentHazWasteEJ
1	24001001700	Census Tract 17, Allegany County, Maryland	18.18	66.37	0.97	2.69	0.51	6.54

#	PercentSuperFundNPL	PercentSuperFundNPLEJ	PercentHazWW	PercentHazWWEJ	BrownFPercent	Percentile_1	PercentPowerPlants	Percentile_12
1	6.13	17.79	9.92	10.91	0.00	0.00	0.00	0.00

#	PercentCAFOS	Percentile_12_13	PercentActiveMines	Percentile_12_13_14	PollutionEnvironmentalPercent	PollnEnvironmentalPercentile	Area(mi²)
1	0.00	0.00	18.18	99.32	5.99	39.92	N/A

Overburdened Exposure Score (%ile score)

#	GEOID20	Geographic_Area_Name	Total_Pop	PercentNATA_Cancer	Percentile_NATA_Cancer	PercentNATA_Resp_HI	Percentile_NATA_Resp_HI	PercentNATA_Diesel
1	24001001700	Census Tract 17, Allegany County, Maryland	4,278.00	40.00	9.02	40.00	5.00	10.23

#	Percentile_NATA_Diesel	PercentNATA_PM25	PercentileNATA_PM25	PercentOzone	PercentileOzone	PercentTraffic	PercentileTraffic	PercentTRI
1	4.63	75.48	4.28	85.54	9.70	2.28	12.50	0.00

#	PercentileTRI	PercentHazWasteLF	Percentile_HazWasteLF	PollutionExposurePercent	PollutionExposurePercentile	Area(mi²)
1	0.00	0.00	0.00	31.69	1.03	N/A

Overburdened Sensitive Population (%ile score)

#	GEOID20	Geographic_Area_Name	PerAstma	PercentileAst	PerMyo	PercentileMyo	PerLow	PercentileLow
1	24001001700	Census Tract 17, Allegany County, Maryland	76.50	76.56	84.80	79.63	24.80	29.87

#	PercentBroad	PercentileBroad	PercentSens	PercentileSens	Area(mi²)
1	17.20	84.69	50.83	67.69	N/A

Socioeconomic/Demographic Score 2020 (Percentile score) (Underserved Community)

#	Census tract identifier	Geographic Area Name	Total Population	Percent Poverty	Percent Minority	Percent Limited English Proficiency	Demographic Score (Percent for this tract)	Demographic Score (Percentile Distribution acoss Maryland)	Area(mi²)
1	24001001700	Census Tract 17, Allegany County, Maryland	4,278	39.91	6.01	0.00	15.31	33.45	N/A

Ozone (2015)

#	STATEFP10	COUNTYFP10	COUNTYNS10	GEOID10	NAME10	Ozone NAA Area	8-Hr Ozone (2015) Designation	8-HR Ozone (2015) Classification	8-Hr Ozone (2015) Status	Area(mi²)
1	24	001	01713506	24001	Allegany	*No Data*	Attainment/Unclassifiable	*No Data*	*No Data*	N/A

Fine Particles (2012)

#	STATEFP10	COUNTYFP10	COUNTYNS10	GEOID10	NAME10	PM2.5 (2012) Status	Area(mi²)
1	24	001	01713506	24001	Allegany	Attainment/Unclassifiable	N/A

Biosolids FY 2020 and Current Permits Distribution By Acreage

#	County Name	FY2020andAfter	Area(mi²)
1	Allegany	1,329.50	N/A

Biosolids FY2015 - 2019 Permits Distribution By Acreage

#	County Name	FY2015to2019	Area(mi²)
1	Allegany	244.70	N/A

Biosolids FY2010 - 2014 Permits Distribution By Acreage

#	County Name	FY2010to2014	Area(mi²)
1	Allegany	241.00	N/A

Biosolids FY2009 Permits Expired Distribution By Acreage

#	County Name	FY2009	Area(mi²)
1	Allegany	200.30	N/A

Biosolids FY 2020 and Current Permit Distribution By Percent Coverage

#	County Name	FY2020andAfter	Area(mi²)
1	Allegany	1,329.50	N/A

Biosolids FY2015 - 2019 Permit Distribution By Percent Coverage

#	County Name	FY2015to2019	Area(mi²)
1	Allegany	244.70	N/A

Biosolids FY2010 - 2014 Permit Distribution By Percent Coverage

#	County Name	FY2010to2014	Area(mi²)
1	Allegany	241.00	N/A

Biosolids FY2009 Expired Permit Distribution By Percent Coverage

#	County Name	FY2009	Area(mi²)
1	Allegany	200.30	N/A

10 Miles from Landfill

#	County	Type	Facility_N	ADDRESS	FILL	SITE__ACRE	AI_No_	Owner_Type
1	ALLEGANY	WMF	Mountainview MunicipalLF	13300 New George's Creek Rd, Frostburg MD 21532.	40	396.00	19,953.00	PRI
2	ALLEGANY	WPT	Western MarylandPF&TS	13810 Hazmat Drive, Cumberland MD 21502.	-	5.85	63,586.00	PRI

#	MD_GRID__E	PERMITNUMB	EXPIRATION	Area(mi²)
1	261 /654	2011-WMF-0010	4/12/2016, 8:00 PM	N/A
2	801 /710	2014-WPT-0632	10/29/2019, 8:00 PM	N/A

10 Miles from Composting Facility

#	County	Facility	Address	Accepts_Fo	Location_o	Area(mi²)
1	*No Data*	Allegany County Compost Site	11700 Pittsburgh PLate Glass Road, Cumberland, MD 21502	No	11700 Pittsburgh Plate Glass Rd, Cumberland, MD 21502	N/A

30 Mile Buffer (Out of State)

#	FacilityName	Contact	Area(mi²)
1	Hillcrest Saylor Dairy Farms, LLC	https://files.dep.state.pa.us/Waste/Bureau%20of%20Waste%20Management/WasteMgtPortalFiles/PA_Permitted_Food_Waste_Composting_Facilities.pdf	N/A

AIR QUALITY PERMIT TO CONSTRUCT APPLICATION CHECKLIST

OWNER OF EQUIPMENT/PROCESS	
COMPANY NAME:	Journey Pet Services
COMPANY ADDRESS:	10800 Laurel Hill Dr., Frostburg, MD 21532
LOCATION OF EQUIPMENT/PROCESS	
PREMISES NAME:	Journet Pet Services
PREMISES ADDRESS:	10800 Laurel Hill Drive, Frostburg, MD 21532
CONTACT INFORMATION FOR THIS PERMIT APPLICATION	
CONTACT NAME:	Caleb Hill
JOB TITLE:	Owner
PHONE NUMBER:	301-689-3599
EMAIL ADDRESS:	caleb@journeypetservices.com
DESCRIPTION OF EQUIPMENT OR PROCESS	
Pet Crematory	

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. X Form 5
No. _____ Form 5T
No. X Form 5EP
No. X Form 6
No. X Form 10
No. _____ Form 11
No. _____ Form 41
No. _____ Form 42
No. _____ Form 44

☒ 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 (1)

☐ Documentation that the proposed installation complies with local zoning and land use requirements (2)

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

(2) Required for applications subject to Expanded Public Participation Requirements.

RECEIVED
AUG 17 2023
By

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
Journey Pet Services

Mailing Address
10800 Laurel Hill Dr.
Street Address

Frostburg | MD | 21532
City | State | Zip

Telephone Number
(301) 689-3599

Signature
C J. Hill

Caleb Hill - Owner | 8/15/23
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)
10800 Laurel Hill Drive
Street Number and Street Name

Frostburg | MD | 21532 | (301) 689-3599
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 (15)	New Construction Begun (MM/YY) (16-19)	New Construction Completed (MM/YY) (20-23)	Existing Initial Operation (MM/YY) (20-23)
A	0623	1023	

4. Describe this Equipment: **Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
B&L Cremation Systems Inc, BLP-750M5 Animal Crematory

5. Workmen's Compensation Coverage Q96 7900237 (Binder/Policy Number) 12/29/23 (Expiration Date)
Company

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 One

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

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

Name _____ Title _____

Company _____

Mailing Address/Street _____

City/Town _____ State _____ Telephone (_____) _____

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

Pet Cremations

9. Control Devices Associated with this Equipment

None [X] 24-0

Simple/Multiple Cyclone	Spray/Adsorb Tower	Venturi Scrubber	Carbon Adsorber	Electrostatic Precipitator	Baghouse	Thermal/Catalytic Afterburner	Dry Scrubber
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
24-1	24-2	24-3	24-4	24-5	24-6	24-7	24-8

Other

[ ] Describe _____

24-9

10. Annual Fuel Consumption for this Equipment

OIL-1000 GALLONS	SULFUR %	GRADE	NATURAL GAS-1000 FT^3	LP GAS-100 GALLONS	GRADE
			1050 0		
26-31	32-33	34	35-41	42-45	

COAL- TONS	SULFUR %	ASH%	WOOD-TONS	MOISTURE %
46-52	53-55	56-58	59-63	64-65

OTHER FUELS [ ] 66-1 ANNUAL AMOUNT CONSUMED _____ (Specify Type) (Specify Units of Measure)

OTHER FUEL [ ] 66-2 ANNUAL AMOUNT CONSUMED _____ (Specify Type) (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
[ ]	[X]	01	70	10	7	365
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%)
[X]	25	25	25	25	
76	77-78	79-80	81-82	83-84	

12. Equivalent Stack Innformation- is Exhaust through Doors, Windows, etc. Only? (Y/N) N (85)

If not, then	Height Avove Ground (FT)	Inside Diameter at Top	Exit Temperature (°F)	Exit Velocity (FT/SEC)
	25	2'	1000	18
	86-88	89-91	92-95	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)	INPUT RATE PER HOUR	UNITS	PER YEAR	UNITS
1. Deceased Pets		150	lbs	273	tons
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
TOTAL					

14. Output Materials (for this equipment)
Process/Product Stream

NAME	CAS NO. (IF APPLICABLE)	OUTPUT RATE PER HOUR	UNITS	PER YEAR	UNITS
1. Bone Fragments		7.5	lbs	55	tons
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
TOTAL					

15. Waste Streams- Solid and Liquid

NAME	CAS NO. (IF APPLICABLE)	OUTPUT RATE PER HOUR	UNITS	PER YEAR	UNITS
1.					
2.					
3.					
4.					
5.	N/A				
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
3.50	1.63	2.70
99-104	105-110	111-116

Carbon Monoxide	Volatile Organic Compounds	PM-10
2.21	0.2	3.50
177-122	123-128	129-134

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

N/A

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 Date_____ By_____ **Reviewed by State** Date_____ By_____

19. Inventory Date **Month/Year** (171-174) **Equipment Code** (175-177) **SCC Code** (178-185)

20. Annual Operating Rate (186-192) **Maximum Design Hourly Rate** (193-199) **Permit to Operate Month** (200-201) **Transaction Date (MM/DD/YR)** (202-207)

Staff Code (208-210) **VOC Code** (211 212) **SIP Code** (213 214) **Regulation Code** (215-218) **Confidentiality** (219)

Point Description (220-238) **Action** (239) A: Add C: Change

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

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: Journey Pet Services

1. Emission Point Identification Name/Number

List the applicant assigned name/number for this emission point and use this value on the attached required plot plan:
ST-04

2. Emission Point Description

Describe the emission point including all associated equipment and control devices:
Pet Crematory Stack

3. Emissions Schedule for the Emission Point

Continuous or Intermittent (C/I)?	I	**Seasonal Variation** Check box if none: ☒ Otherwise estimate seasonal variation:	
Minutes per hour:		Winter Percent	
Hours per day:	10	Spring Percent	
Days per week:	7	Summer Percent	
Weeks per year:	52	Fall Percent	

4. Emission Point Information

Height above ground (ft):	25'	Length and width dimensions at top of rectangular stack (ft):	Length:	Width:	
Height above structures (ft):	4'				
Exit temperature (°F):	1000	Inside diameter at top of round stack (ft):		2.0	
Exit velocity (ft/min):	18	Distance from emission point to nearest property line (ft):		100	
Exhaust gas volumetric flow rate (acfm):	2400	Building dimensions if emission point is located on building (ft)	Height: 14	Length: 50	Width: 32

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 ☐ Non-Selective
  - ☐ Catalytic ☐ Non-Catalytic
- ☐ Other No. _____
  Specify:

FORM 5EP: Emission Point Data

6. Estimated Emissions from the Emission Point

Criteria Pollutants	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
Particulate Matter (filterable as PM10)	0.35	0.35		0.30
Particulate Matter (filterable as PM2.5)				
Particulate Matter (condensables)	0.35	0.35		0.30
Volatile Organic Compounds (VOC)	0.02	0.02		0.041
Oxides of Sulfur (SOx)	0.163	0.163		0.30
Oxides of Nitrogen (NOx)	0.27	0.27		0.486
Carbon Monoxide (CO)	0.22125	0.22125		0.40
Lead (Pb)	0.0003	0.0003		0.0005
Greenhouse Gases (GHG)	**At Design Capacity (lb/hr)**	**At Projected Operations**		
		(lb/hr)	**(lb/day)**	**(ton/yr)**
Carbon Dioxide (CO_2)				
Methane (CH_4)				
Nitrous Oxide (N_2O)				
Hydrofluorocarbons (HFCs)				
Perfluorocarbons (PFCs)				
Sulfur Hexafluoride (SF6)				
Total GHG (as CO_2e)				
List individual federal Hazardous Air Pollutants (HAP) below:	**At Design Capacity (lb/hr)**	**At Projected Operations**		
		(lb/hr)	**(lb/day)**	**(ton/yr)**

(Attach additional sheets as necessary.)

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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 PERMIT TO CONSTRUCT
GAS CLEANING OR EMISSION CONTROL EQUIPMENT

1. Owner of Installation Journey Pet Services	**Telephone No.** 301-689-3599		**Date of Application** June 2023
2. Mailing Address 10800 Laurel Hill Dr.	**City** Frostburg	**Zip Code** 21532	**County** Allegany
3. Equipment Location 10800 Laurel Hill Drive	**City/Town or P.O.** Frostburg		**County** Allegany
4. Signature of Owner or Operator	**Title** Owner		**Print or Type Name** Calbe Hill

5. Application Type: **Alteration** ☐ **New Construction** ☒

6. Date Construction is to Start: 06/2023 **Completion Date (Estimate):** 10/2023

7. Type of Gas Cleaning or Emission Control Equipment:

Simple Cyclone ☐ **Multiple Cyclone** ☐ **Afterburner** ☒ **Electrostatic Precipitator** ☐

Scrubber ☐ _____ (type) **Other** ☐ _____ (type)

8. Gas Cleaning Equipment Manufacturer B&L Cremation Systems inc	**Model No.** BLP750M5	**Collection Efficiency (Design Criteria)**

9. Type of Equipment which Control Equipment is to Service:
Pet Crematory

10. Stack Test to be Conducted:

Yes ☐ **No** ☐ _____ (Stack Test to be Conducted By) _____ (Date)

11. Cost of Equipment _____

Estimated Erection Cost _____

12. The Following Shall Be Design Criteria:

	INLET		OUTLET	
Gas Flow Rate	_____	ACFM*	_____	ACFM*
Gas Temperature	_____	°F	_____	°F
Gas Pressure	_____	INCHES W.G.	_____	INCHES W.G.
	PRESSURE DROP _____			
Dust Loading	_____	GRAINS/ACFD**	_____	GRAINS/ACFD**
Moisture Content OR Wet Bulb Temperature	_____	% °F	_____	% °F
Liquid Flow Rate (Wet Scrubber)	_____	GALLONS/MINUTE		

(WHEN SCRUBBER LIQUID OTHER THAN WATER INDICATE COMPOSITION OF SCRUBBING MEDIUM IN WEIGHT %)

*= ACTUAL CUBIC FEET PER MINUTE **= ACTUAL CUBIC FEET DRY

WHEN APPLICATION INVOLVES THE REDUCTION OF GASEOUS POLLUTANTS, PROVIDE THE CONCENTRATION OF EACH POLLUTANT IN THE GAS STREAM IN VOLUME PERCENT. INCLUDE THE COMPOSITION OF THE GASES ENTERING THE CLEANING DEVICE AND THE COMPOSITION OF EXHAUSTED GASES BEING DISCHARGED INTO THE ATMOSPHERE. USE AVAILABLE SPACE IN ITEM 15 ON PAGE 3.

13. Particle Size Analysis

Size of Dust Particles Entering Cleaning Unit	% of Total Dust	% to be Collected
0 to 10 Microns	_____	_____
10 to 44 Microns	_____	_____
Larger than 44 Microns	_____	_____

14. For Afterburner Construction Only:

Volume of Contaminated Air _____ CFM (DO NOT INCLUDE COMBUSTION AIR)

Gas Inlet Temperature _____ °F

Capacity of Afterburner 1.5 MM BTU/HR

Diameter (or area) of Afterburner Throat 3.2 ft

Combustion Chamber _____ (diameter) 36 ft (length) Operating Temperature at Afterburner 1600 °F

Retention Time of Gases One Second

15. Show Location of Dust Cleaning Equipment in the System. Draw or Sketch Flow Diagram Showing Emission Path from Source to Exhaust Point to Atmosphere.

Enclosed from Diagram

Date Received: Local _____ State _____

Acknowledgement Date: _____

By _____

Reviewed By:

Local _____

State _____

Returned to Local:

Date_____

By _____

Application Returned to Applicant:

Date_____

By _____

REGISTRATION NUMBER OF ASSOCIATED EQUIPMENT: ☐ ☐☐☐☐

PREMISES NUMBER: ☐☐ ☐☐☐☐

Emission Calculations Revised By _____ Date _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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Air and Radiation Management Administration ▪ Air Quality Permits Program

RECEIVED
AUG 17 2023
By

APPLICATION FOR INCINERATORS

Permit to Construct ☒ Registration ☐

DO NOT WRITE IN THIS SPACE

Date Rec. Local | Date Rec. State

Acknowledgement Sent
Date
By

Reviewed
Name
Date

Local
State

Returned to Local Jurisdiction
Date
By

Application Returned to Applicant
Date
By

Premises Number
(1-6)

Registration Number
(7-13)

1. Owner of Installation or Company Name: Journey Pet Services
Date of Application: July 2023

Mailing Address: 10800 Laurel Hill Dr.
Telephone: 301-689-3599

City: Frostburg
State: MD
Zip Code: 21532

2A. Premises Name if Different from Above:

2B. Incinerator Location if Different From Above (give Street Address, City, County and Zip Code):
10800 Laurel Hill Drive, Frostburg, MD 21532

3. Owner, Agent or Authorized Company Official
Caleb Hill
(Print/Type Name)
(Signature)
10800 Laurel Hill Dr., Frostburg, MD 21532
(Mailing Address, City/Town, State, Zip Code)

4A. New Construction Only
Begin June 2023
Date Construction Completed Oct 2023

4B. Existing Installation
Initial Operation Date
(14-15)

5. Installation or Contractor (New or Replacement Only)
(Name or Company Title)
See above
(Mailing Address, City/Town, State, Zip Code, Telephone Number)

6. Equipment Manufacturer: B&L Cremation Systems Inc
Manufacturer's Serial or Catalog No.: BLP-750M5

7. Total Number of Incinerators of Identical Design and Capacity at this Location: One

8. Major Activity at this Location-Auto Dealer, Hospital, Apartment House, etc.: Pet Crematory

9. Rated Capacity of Incinerator in lb/hr: 150 (16-19)

10. Incinerator Type (Mark only one with X)
Single Chamber Ö (20-1) Multiple Chamber Ö (20-2) Auxiliary Burner Ö (21) Other Ö (22) Specify

11. Frequency of Burning
Hours/Day 10 (23 24) Days/Year 365 (25 26 27)

12. Amount of Waste Burned Per Operating Day: 1500
Units: tons ☐ (32-1) lbs. ☒ (32-2) gal. ☐ (32-3)

13. Method of Charging Waste into Unit: Manual Ö Automatic Ö

Form number: 10
Revision date: 09/27/2002
TTY Users 1-800-735-2258

Recycled Paper

14. Type of Waste/Refuse Incinerated. Mark major type with ✗ -- all others with Check ✓.

Trash 100% Dry ☐ 33 | Refuse 20% Garbage ☐ 34 | Refuse 50% Garbage ☐ 35 | Garbage ☒ 36 | Animal or Animal Parts ☐ 37 | Municipal Refuse ☐ 38 | Infectious/ Pathological ☐ 39

Does this waste contain Carcinogenic or Toxic Material? Y/N Industrial Process Waste ☐ 40 _____ Other ☐ 41 _____

15. Total Annual Auxiliary Fuels Used

Oil _____ (gallons) 42-47 _____ (Grade) 48 Natural Gas 10,520,000 49-55 (ft^3)

LP Gas _____ (gallons) 56-59 Other ☐ _____ 90-92 specify fuel & units required

16. Stack Information: Height Above Ground (ft) _____ 94-96 Inside Diameter at Top (in) _____ 97-99

Exit Temperature (°F) _____ 100-103 Gas Exit Velocity (ft/min) _____ 104-107

17. Emission Control Devices

Gas Cleaning Form AMA-6 Must be Completed for Each Device Used and Attached to this Application.

None ☐ 108 | Settling Chamber or Baffles ☐ 109 | Simple Cyclone ☐ 110 | Multiple Cyclone ☐ 111 | Scrubber ☐ 112 | Venturi Scrubber ☐ 113 | Electrostatic Precipitator ☐ 114 | Bag-house ☐ 115 | After-burner ☐ 116

Other ☐ _____ 117-118 Specify Type

DO NOT WRITE BELOW THIS LINE

18. Actual Stack Emissions in Pounds per Operating Day

Particulate Matter ☐☐☐☐☐☐ 119-124 Oxides of Sulfur ☐☐☐☐☐☐ 125-130 Oxides of Nitrogen ☐☐☐☐☐☐ 131-136

Carbon Monoxide ☐☐☐☐☐☐ 137-142 Volatile Organic Compounds ☐☐☐☐☐☐ 143-148

Other Pollutants Specify _____ Type/Amount

19. Inventory Date ☐☐☐☐ 180-183

20. Method Used to Determine Emissions

	Estimate	Emission Factor	Stack Test	Other
Particulate matter	☐ 184-1	☐ -2	☐ -3	☐ -4
Oxides of Nitrogen	☐ 186-1	☐ -2	☐ -3	☐ -4
Volatile Organics	☐ 188-1	☐ -2	☐ -3	☐ -4
Oxides of Sulfur	☐ 185-1	☐ -2	☐ -3	☐ -4
Carbon Monoxide	☐ 187-1	☐ -2	☐ -3	☐ -4

21. Premises Information Premises Name _____

Census Tract ☐☐☐☐☐☐ 243-248 SIC No. ☐☐☐☐ 249-252 MD Grid East ☐☐☐☐ 253-256 MD Grid North ☐☐☐ 257-259

Owner Private ☐ 260-0 Local ☐ 260-1 State ☐ 260-2 Federal ☐ 260-3

Date Completed _____

Completed By _____

Calculation of Emissions

Potential to Emit

B&L Cremation Systems, Inc.

Total Incinerator Burn Capacity 150 lbs/hr our of remains (type 4)

Flue Gas Flow Rate = 934 dscfm 10 Hours/Day X 7 Days/W X 52 Weeks/Year
(100% Excess Air) = 3640 Hours/Year

Total Emission Rate = Incinerator Burn Rate X Emission Factor

Sulfer Dioxide (SO_2)

150	lb/hr	X	2.17	lb/ton	X	1 ton			=	0.163	lbs/hr
						2000 lbs			=	0.30	TPY
0.16	lb/hr	X	454000	mg/lb	X	1 ppmv			=	17.85	ppmv
934	dscfm	X	60	min/hr	X	0.028 m^3/r^3	X	2.61 mg/m^3			

Nitrogen Oxide (NOx - as Nitrogen Dioxide)

150	lb/hr	X	3.56	lb/ton	X	1 ton			=	0.27	lbs/hr
						2000 lbs			=	0.486	TPY
0.27	lb/hr	X	454000	mg/lb	X	1 ppmv			=	41.09	ppmv
934	dscfm	X	60	min/hr	0.028	m^3/r^3	X	1.88 mg/m^3			

Hydrocarbons (TOC/VOC - methane)

150	lb/hr	X	0.299	lb/ton	X	1 ton			=	0.02	lbs/hr
						2000 lbs			=	0.041	TPY
0.02	lb/hr	X	454000	mg/lb	X	1 ppmv			=	9.88	ppmv
934	dscfm	X	60	min/hr	0.028	m^3/r^3	X	0.65 mg/m^3			

Lead (Pb) (0.0002 % of body weight)

150	lb/hr	X	0.0002	lb/ton					=	0.0003	lbs/hr
			100	lbs					=	0.0005	TPY

Particulates (PM & PM_{10})

150	lb/hr	X	4.67	lb/ton	X	1 ton			=	0.35	lbs/hr
						2000 lbs			=	0.637	TPY
0.35	lb/hr	X	7000	mg/lb					=	0.04	gr/dscf
934	dscfm	X	60	min/hr							

Carbon Monoxide (CO)

150	lb/hr	X	2.95	lb/ton	X	1 ton			=	0.22125	lbs/hr
						2000 lbs			=	0.40	TPY
0.22	lb/hr	X	454000	mg/lb	X	1 ppmv			=	56.15	ppmv
934	dscfm	X	60	min/hr	0.028	m^3/f^3	X	1.14 mg/m^3			

Notes:

1. Incinerator Emissions based on EPA emissions from Table 2.3.1 of AP-42 (5th Edition)
2. All conversion factors from AP-42 Appendix A. Lead from EPA Fire.

Compound	CAS #	SCC	Amount lbs.	Cremations per year	Total lbs/yr	Total tons/yr
POLLUTANT	SCC	CAS	FACTOR	CREMATIONS	Lbs/yr	T/yr
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	31502101	31502101	4.92E-10	1	4.92E-10	2.46E-13
Indeno(1,2,3-cd)pyrene	31502101	193-39-5	< 1.540E-8	1	1.54E-08	7.70E-12
Hydrogen fluoride	31502101	7664-39-3	6.55E-04	1	6.55E-04	3.28E-07
Hydrogen chloride	31502101	7647-01-0	7.20E-02	1	7.20E-02	3.60E-05
Hexachlorodibenzofurans, total	31502101		1.09E-08	1	1.09E-08	5.45E-12
2,3,4,6,7,8-Hexachlorodibenzofuran	31502101	60851-34-5	3.44E-10	1	3.44E-10	1.72E-13
1,2,3,7,8,9-Hexachlorodibenzofuran	31502101	72918-21-9	1.67E-09	1	1.67E-09	8.35E-13
1,2,3,6,7,8-Hexachlorodibenzofuran	31502101	57117-44-9	8.52E-10	1	8.52E-10	4.26E-13
Dibenzo(a,h)anthracene	31502101	53-70-3	< 1.270E-8	1	1.27E-08	6.35E-12
Hexachlorodibenzo-p-dioxins, total	31502101	34465-46-8	5.66E-09	1	5.66E-09	2.83E-12
Molybdenum	31502101	7439-98-7	< 1.670E-5	1	0.0000167	8.35E-09
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	31502101	57653-85-7	3.97E-10	1	3.97E-10	1.985E-13
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	31502101	39227-28-6	2.75E-10	1	2.75E-10	1.375E-13
Heptachlorodibenzofurans, total	31502101		< 5.410E-9	1	5.41E-09	2.705E-12

1,2,3,4,7,8,9-Heptachlorodibenzofuran	31502101	55673-89-7	< 2.780E-10	1	2.78E-10	1.39E-13
1,2,3,4,6,7,8-Heptachlorodibenzofuran	31502101	67562-39-4	< 4.570E-9	1	4.57E-09	2.285E-12
Heptachlorodibenzo-p-dioxins, total	31502101		8.14E-09	1	8.14E-09	4.07E-12
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	31502101	35822-46-9	3.79E-09	1	3.79E-09	1.895E-12
Fluorene	31502101	86-73-7	4.17E-07	1	0.000000417	2.085E-10
Fluoranthene	31502101	206-44-0	2.05E-07	1	0.000000205	1.025E-10
1,2,3,4,7,8-Hexachlorodibenzofuran	31502101	70648-26-9	9.53E-10	1	9.53E-10	4.765E-13
Polychlorinated dibenzo-p-dioxins, total	31502101		2.35E-08	1	2.35E-08	1.175E-11
Zinc	31502101	7440-66-6	3.53E-04	1	0.000353	1.765E-07
Vanadium	31502101	7440-62-2	5.79E-05	1	0.0000579	2.895E-08
Thallium	31502101	7440-28-0	< 8.520E-5	1	0.0000852	4.26E-08
Tetrachlorodibenzofurans, total	31502101		1.10E-08	1	0.000000011	5.5E-12
2,3,7,8-Tetrachlorodibenzofuran	31502101	51207-31-9	5.19E-10	1	5.19E-10	2.595E-13
Tetrachlorodibenzo-p-dioxins, total	31502101		1.41E-09	1	1.41E-09	7.05E-13
2,3,7,8-Tetrachlorodibenzo-p-dioxin	31502101	1746-01-6	7.94E-11	1	7.94E-11	3.97E-14
Silver	31502101	7440-22-4	7.30E-06	1	0.0000073	3.65E-09
Selenium	31502101	7782-49-2	< 4.360E-5	1	0.0000436	2.18E-08
Pyrene	31502101	129-00-0	1.62E-07	1	0.000000162	8.1E-11
Lead	31502101	7439-92-1	6.62E-05	1	0.0000662	3.31E-08

Polychlorinated dibenzofurans, total	31502101		< 3.530E-8	1	3.53E-08	1.765E-11
Mercury	31502101	7439-97-6	3.29E-03	1	0.00329	0.000001645
PM, filterable	31502101		8.50E-02	1	0.085	0.0000425
PM, filterable	31502101		5.59E-05	1	0.0000559	2.795E-08
Phenanthrene	31502101	85-01-8	2.29E-06	1	0.00000229	1.145E-09
Pentachlorodibenzofurans, total	31502101		6.44E-09	1	6.44E-09	3.22E-12
2,3,4,7,8-Pentachlorodibenzofuran	31502101	57117-31-4	< 8.850E-10	1	8.85E-10	4.425E-13
1,2,3,7,8-Pentachlorodibenzofuran	31502101	57117-41-6	< 2.940E-10	1	2.94E-10	1.47E-13
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	31502101	40321-76-4	2.33E-10	1	2.33E-10	1.165E-13
Octachlorodibenzo-p-dioxins, total	31502101	3268-87-9	6.07E-09	1	6.07E-09	3.035E-12
Nickel	31502101	7440-02-0	3.82E-05	1	0.0000382	1.91E-08
Octachlorodibenzofurans, total	31502101	39001-02-0	1.62E-09	1	1.62E-09	8.1E-13
Polycyclic aromatic hydrocarbons (PAH)	31502101		3.76E-06	1	0.00000376	1.88E-09
Benzo (a) anthracene	31502101	56-55-3	< 9.760E-9	1	9.76E-09	4.88E-12
Copper	31502101	7440-50-8	2.74E-05	1	0.0000274	1.37E-08
Pentachlorodibenzo-p-dioxins, total	31502101		2.17E-09	1	2.17E-09	1.085E-12
Acenaphthene	31502101	83-32-9	1.11E-07	1	0.000000111	5.55E-11

Acenaphthylene	31502101	208-96-8	1.22E-07	1	0.000000122	6.1E-11
Anthracene	31502101	120-12-7	3.24E-07	1	0.000000324	1.62E-10
Antimony	31502101	7440-36-0	< 3.020E-5	1	0.0000302	1.51E-08
Barium	31502101	7440-39-3	2.40E-05	1	0.000024	0.000000012
Benzo (a) pyrene	31502101	50-32-8	< 2.910E-8	1	2.91E-08	1.455E-11
Chromium	31502101	7440-47-3	2.99E-05	1	0.0000299	1.495E-08
Cobalt	31502101	7440-48-4	< 1.750E-6	1	0.00000175	8.75E-10
Chrysene	31502101	218-01-9	< 5.400E-8	1	0.000000054	2.7E-11
Arsenic	31502101	7440-38-2	< 3.000E-5	1	0.00003	0.000000015
Chromium (VI)	31502101	18540-29-9	1.35E-05	1	0.0000135	6.75E-09
Benzo (b) fluoranthene	31502101	205-99-2	< 1.590E-8	1	1.59E-08	7.95E-12
Cadmium	31502101	7440-43-9	1.11E-05	1	0.0000111	5.55E-09
Beryllium	31502101	7440-41-7	1.37E-06	1	0.00000137	6.85E-10
Benzo (k) fluoranthene	31502101	207-08-9	< 1.420E-8	1	1.42E-08	7.1E-12
Benzo (g,h,i) perylene	31502101	191-24-2	< 2.910E-8	1	2.91E-08	1.455E-11
					1.62E-01	

Total Tons/yr.

8.09E-05

Trinity Consultants

MEMORANDUM

To: Ellen Pazos, B&L Cremation Systems, Inc

cc: Nicole Saniti & Megan Keyser, Trinity Consultants

From: Susan Barnes, Trinity Consultants

Date: August 4, 2023

RE: Journey Pet Services Crematory AERSCREEN Modeling

Summary

As requested by B&L Cremation Systems, Inc. (B&L), Trinity Consultants (Trinity) has completed AERSCREEN air dispersion modeling for criteria pollutants and toxic air pollutants (TAPs) emitted from the Journey Pet Services Crematory to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and Maryland Department of the Environment (MDE) Toxic Air Pollutants Program (TAPs Program).

Journey Pet Services is proposing to install and operate a BLP-750M5 Animal Crematory and is evaluating compliance with ambient air quality standards associated with this project. Accordingly, Journey Pet Services has requested that Trinity conduct AERSCREEN modeling to assess the off-site impacts of this change.

The AERSCREEN modeling completed by Trinity demonstrates that the maximum estimated ambient concentrations of all criteria pollutants, including particulate matter with aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen oxides (NO_x), lead, carbon monoxide (CO), and TAPs emitted by the facility are less than the NAAQS and TAP limits. Therefore, Journey Pet Services is not expected to cause exceedance of the NAAQS or TAPs Program screening levels.

Air Dispersion Modeling Methodology and Inputs

The AERSCREEN air dispersion model was determined by B&L and Trinity to provide a reasonable and conservative estimate of off-site air quality impacts caused by Journey Pet Services. This section describes the inputs used in the modeling.

AERSCREEN Inputs

AERSCREEN modeling estimates off-site pollutant concentrations using physical stack parameters, building parameters, estimates of meteorological conditions, and information about the surrounding area. Much of the necessary information was provided to Trinity by B&L. Additional information was gathered by analyzing Journey Pet Services and the surrounding area using Google Earth. A complete list of parameters used in the AERSCREEN model is shown in Attachment 1.

Emission Rates

Journey Pet Services emits air pollutants from three crematory stacks. For the purposes of this analysis, Trinity has assumed that the emissions from the three stacks are emitted from a single stack, and that the emissions from a single cremation occur over the course of an hour. When modeling the emissions from a single stack, a linear relationship exists between the emission rates from the stack and the estimated

5320 Spectrum Drive, Suite A, Frederick, MD 21703
P 240.379.7490

ambient concentrations of modeled pollutants. Therefore, AERSCREEN modeling was performed using a unit emission rate of 1 pound per hour, then predicted ambient concentrations of criteria pollutants and TAPs were calculated by multiplying the AERSCREEN results for the appropriate averaging periods by the known emission rate in pounds per hour of each pollutant. Trinity assumed that emission rates of PM_{10} and $PM_{2.5}$ were equivalent to potential emission rates for total PM. These predicted concentrations were then compared to the applicable NAAQS and TAP screening levels. Calculations of predicted ambient concentrations for each pollutant are detailed in Attachment 1.

Modeling Results

The completed AERSCREEN modeling demonstrates that off-site concentrations of all criteria pollutants and TAPs emitted from Journey Pet Services are not expected to exceed the NAAQS and TAP screening levels. Table 1 presents a comparison of the model predicted concentrations to the NAAQS. The comparison to TAP screening levels is provided in Attachment 1.

Table 1: Comparison of Model Results to NAAQS

Pollutant	Averaging Period	National Ambient Air Quality Standard ($\mu g/m^3$)	Predicted Maximum Off-site Concentration ($\mu g/m^3$)	NAAQS Exceeded?
PM_{10}	24-Hour	150	1.65	NO
$PM_{2.5}$	24-Hour	35	1.65	NO
	Annual	12.0	0.28	NO
SO_x	1-Hour	196	1.28	NO
	3-Hour	1,300	1.28	NO
	24-Hour	365	0.77	NO
	Annual	80	0.13	NO
NO_x	1-Hour	188	2.13	NO
	Annual	100	0.21	NO
Lead	3-Month	0.15	0.00	NO
CO	1-Hour	10,000	1.74	NO
	8-Hour	40,000	1.74	NO

Attachment 1: AERSCREEN Inputs and Results

B&L Cremation Systems
Woodbine Pet Crematory
AERSCREEN Inputs and Results

AERSCREEN Inputs

Control Options

Land Use	Rural

Source Parameters

Source Type	Point	
Emission Rate	1	lb/hr
Stack Height	25	ft
Stack Diameter	24	in
Stack Temperature	1,000	F
Exit Velocity	23.52	ft/s

Building Parameters

Height	14	ft
Length	50	ft
Width	32	ft
Max Dimension Angle to N	75	degrees
Angle from Center to Stack	150	degrees
Distance from Center to Stack	3	ft

Receptors

Min Distance to Ambient Air	100	ft
Max Distance to Probe	16,425	ft

Meteorology

Min Temperature	0	F
Max Temperature	100	F
Min Wind Speed	0.5	m/s
Anemometer Height	10	m
Surface Profile	Deciduous Forest	

AERSCREEN Results

Modeled Concentrations @ 1 lb/hr ($\mu g/m^3$)

	Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled Annual
Maximum Impact	6.734	6.734	6.061	4.041	0.6734
At Ambient Boundary	4.95	4.95	4.455	2.97	0.495

Criteria Pollutant Emission Rates (lb/hr)

		Source
PM_{10}	0.35	Potential to Emit from Permit Application
$PM_{2.5}$	0.35	Potential to Emit from Permit Application
SO_x	0.16	Potential to Emit from Permit Application
NO_x	0.27	Potential to Emit from Permit Application
Lead	3.00E-04	Potential to Emit from Permit Application
VOC	0.02	Potential to Emit from Permit Application
CO	0.22	Potential to Emit from Permit Application

TAPS Emission Rates (lb/hr)

	Actual Emissions (lb/hr/unit)	Actual Emissions (lb/hr)	Source
Indeno(1,2,3-cd)pyrene	1.54E-08	4.62E-08	Provided by B&L
Hydrogen fluoride	6.55E-04	1.97E-03	Provided by B&L
Hydrogen chloride	7.20E-02	2.16E-01	Provided by B&L
Dibenzo(a,h)anthracene	1.27E-08	3.81E-08	Provided by B&L
Fluorene	4.17E-07	1.25E-06	Provided by B&L
Fluoranthene	2.05E-07	6.15E-07	Provided by B&L
Zinc	3.53E-04	1.06E-03	Provided by B&L
Vanadium	5.79E-05	1.74E-04	Provided by B&L
Thallium	8.52E-05	2.56E-04	Provided by B&L
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	3.79E-09	1.14E-08	Provided by B&L
1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.78E-10	8.34E-10	Provided by B&L
1,2,3,4,6,7,8-Heptachlorodibenzofuran	4.57E-09	1.37E-08	Provided by B&L
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	4.92E-10	1.48E-09	Provided by B&L
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	3.97E-10	1.19E-09	Provided by B&L
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	2.75E-10	8.25E-10	Provided by B&L
2,3,4,6,7,8-Hexachlorodibenzofuran	3.44E-10	1.03E-09	Provided by B&L
1,2,3,7,8,9-Hexachlorodibenzofuran	1.67E-09	5.01E-09	Provided by B&L
1,2,3,6,7,8-Hexachlorodibenzofuran	8.52E-10	2.56E-09	Provided by B&L
1,2,3,4,7,8-Hexachlorodibenzofuran	9.53E-10	2.86E-09	Provided by B&L
2,3,4,7,8-Pentachlorodibenzofuran	8.85E-10	2.66E-09	Provided by B&L
1,2,3,7,8-Pentachlorodibenzofuran	2.94E-10	8.82E-10	Provided by B&L
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	2.33E-10	6.99E-10	Provided by B&L
2,3,7,8-Tetrachlorodibenzofuran	5.19E-10	1.56E-09	Provided by B&L
2,3,7,8-Tetrachlorodibenzo-p-dioxin	7.94E-11	2.38E-10	Provided by B&L
Silver	7.30E-06	2.19E-05	Provided by B&L
Molybdenum	1.67E-05	5.01E-05	Provided by B&L
Selenium	4.36E-05	1.31E-04	Provided by B&L
Pyrene	1.62E-07	4.86E-07	Provided by B&L
Lead	6.62E-05	1.99E-04	Provided by B&L
Mercury	3.29E-03	9.87E-03	Provided by B&L
Phenanthrene	2.29E-06	6.87E-06	Provided by B&L
Nickel	3.82E-05	1.15E-04	Provided by B&L
Benz(a)anthracene	9.76E-09	2.93E-08	Provided by B&L
Copper	2.74E-05	8.22E-05	Provided by B&L
Acenaphthene	1.11E-07	3.33E-07	Provided by B&L
Acenaphthylene	1.22E-07	3.66E-07	Provided by B&L
Anthracene	3.24E-07	9.72E-07	Provided by B&L
Antimony	3.02E-05	9.06E-05	Provided by B&L
Barium	2.40E-05	7.20E-05	Provided by B&L
Benzo(a)pyrene	2.91E-08	8.73E-08	Provided by B&L
Chromium	2.99E-05	8.97E-05	Provided by B&L
Cobalt	1.75E-06	5.25E-06	Provided by B&L
Chrysene	5.40E-08	1.62E-07	Provided by B&L
Arsenic	3.00E-05	9.00E-05	Provided by B&L
Chromium VI	1.35E-05	4.05E-05	Provided by B&L
Benzo(b)fluoranthene	1.59E-08	4.77E-08	Provided by B&L
Cadmium	1.11E-05	3.33E-05	Provided by B&L
Beryllium	1.37E-06	4.11E-06	Provided by B&L
Benzo(k)fluoranthene	1.42E-08	4.26E-08	Provided by B&L
Benzo(ghi)perylene	2.91E-08	8.73E-08	Provided by B&L

Modeled Maximum Impact Concentrations By Pollutant ($\mu g/m^3$)

	Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled Annual
PM_{10}	2.36	2.36	2.12	1.41	0.24
$PM_{2.5}$	2.36	2.36	2.12	1.41	0.24
SO_x	1.10	1.10	0.99	0.66	0.11
NO_x	1.82	1.82	1.64	1.09	0.18
Lead	0.00	0.00	0.00	0.00	0.00
VOC	0.13	0.13	0.12	0.08	0.01
CO	1.49	1.49	1.34	0.89	0.15

Modeled Maximum Impact Concentrations By Pollutant ($\mu g/m^3$)

	Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled Annual
Indeno(1,2,3-cd)pyrene	3.11E-07	3.11E-07	2.80E-07	1.87E-07	3.11E-08
Hydrogen fluoride	1.32E-02	1.32E-02	1.19E-02	7.94E-03	1.32E-03
Hydrogen chloride	1.45E+00	1.45E+00	1.31E+00	8.73E-01	1.45E-01
Dibenzo(a,h)anthracene	2.57E-07	2.57E-07	2.31E-07	1.54E-07	2.57E-08
Fluorene	8.42E-06	8.42E-06	7.58E-06	5.06E-06	8.42E-07
Fluoranthene	4.14E-06	4.14E-06	3.73E-06	2.49E-06	4.14E-07
Zinc	7.13E-03	7.13E-03	6.42E-03	4.28E-03	7.13E-04
Vanadium	1.17E-03	1.17E-03	1.05E-03	7.02E-04	1.17E-04
Thallium	1.72E-03	1.72E-03	1.55E-03	1.03E-03	1.72E-04
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	7.66E-08	7.66E-08	6.89E-08	4.59E-08	7.66E-09
1,2,3,4,7,8,9-Heptachlorodibenzofuran	5.62E-09	5.62E-09	5.05E-09	3.37E-09	5.62E-10
1,2,3,4,6,7,8-Heptachlorodibenzofuran	9.23E-08	9.23E-08	8.31E-08	5.54E-08	9.23E-09
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	9.94E-09	9.94E-09	8.95E-09	5.96E-09	9.94E-10
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	8.02E-09	8.02E-09	7.22E-09	4.81E-09	8.02E-10
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	5.56E-09	5.56E-09	5.00E-09	3.33E-09	5.56E-10
2,3,4,6,7,8-Hexachlorodibenzofuran	6.95E-09	6.95E-09	6.25E-09	4.17E-09	6.95E-10
1,2,3,7,8,9-Hexachlorodibenzofuran	3.37E-08	3.37E-08	3.04E-08	2.02E-08	3.37E-09
1,2,3,6,7,8-Hexachlorodibenzofuran	1.72E-08	1.72E-08	1.55E-08	1.03E-08	1.72E-09
1,2,3,4,7,8-Hexachlorodibenzofuran	1.93E-08	1.93E-08	1.73E-08	1.16E-08	1.93E-09
2,3,4,7,8-Pentachlorodibenzofuran	1.79E-08	1.79E-08	1.61E-08	1.07E-08	1.79E-09
1,2,3,7,8-Pentachlorodibenzofuran	5.94E-09	5.94E-09	5.35E-09	3.56E-09	5.94E-10
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	4.71E-09	4.71E-09	4.24E-09	2.82E-09	4.71E-10
2,3,7,8-Tetrachlorodibenzofuran	1.05E-08	1.05E-08	9.44E-09	6.29E-09	1.05E-09
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1.60E-09	1.60E-09	1.44E-09	9.63E-10	1.60E-10
Silver	1.47E-04	1.47E-04	1.33E-04	8.85E-05	1.47E-05
Molybdenum	3.37E-04	3.37E-04	3.04E-04	2.02E-04	3.37E-05
Selenium	8.81E-04	8.81E-04	7.93E-04	5.29E-04	8.81E-05
Pyrene	3.27E-06	3.27E-06	2.95E-06	1.96E-06	3.27E-07
Lead	1.34E-03	1.34E-03	1.20E-03	8.03E-04	1.34E-04
Mercury	6.65E-02	6.65E-02	5.98E-02	3.99E-02	6.65E-03
Phenanthrene	4.63E-05	4.63E-05	4.16E-05	2.78E-05	4.63E-06
Nickel	7.72E-04	7.72E-04	6.95E-04	4.63E-04	7.72E-05
Benz(a)anthracene	1.97E-07	1.97E-07	1.77E-07	1.18E-07	1.97E-08
Copper	5.54E-04	5.54E-04	4.98E-04	3.32E-04	5.54E-05
Acenaphthene	2.24E-06	2.24E-06	2.02E-06	1.35E-06	2.24E-07
Acenaphthylene	2.46E-06	2.46E-06	2.22E-06	1.48E-06	2.46E-07
Anthracene	6.55E-06	6.55E-06	5.89E-06	3.93E-06	6.55E-07
Antimony	6.10E-04	6.10E-04	5.49E-04	3.66E-04	6.10E-05
Barium	4.85E-04	4.85E-04	4.36E-04	2.91E-04	4.85E-05
Benzo(a)pyrene	5.88E-07	5.88E-07	5.29E-07	3.53E-07	5.88E-08
Chromium	6.04E-04	6.04E-04	5.44E-04	3.62E-04	6.04E-05
Cobalt	3.54E-05	3.54E-05	3.18E-05	2.12E-05	3.54E-06
Chrysene	1.09E-06	1.09E-06	9.82E-07	6.55E-07	1.09E-07
Arsenic	6.06E-04	6.06E-04	5.45E-04	3.64E-04	6.06E-05
Chromium VI	2.73E-04	2.73E-04	2.45E-04	1.64E-04	2.73E-05
Benzo(b)fluoranthene	3.21E-07	3.21E-07	2.89E-07	1.93E-07	3.21E-08
Cadmium	2.24E-04	2.24E-04	2.02E-04	1.35E-04	2.24E-05
Beryllium	2.77E-05	2.77E-05	2.49E-05	1.66E-05	2.77E-06
Benzo(k)fluoranthene	2.87E-07	2.87E-07	2.58E-07	1.72E-07	2.87E-08
Benzo(ghi)perylene	5.88E-07	5.88E-07	5.29E-07	3.53E-07	5.88E-08

Comparison With NAAQS (µg/m³)

		Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled 3-month	Scaled Annual
PM_{10}	Modeled Concentration	--	--	--	1.41	--	--
	NAAQS	--	--	--	150	--	--
	Modeled < NAAQS?	--	--	--	Y	--	--
$PM_{2.5}$	Modeled Concentration	--	--	--	1.41	--	0.24
	NAAQS	--	--	--	35	--	12.0
	Modeled < NAAQS?	--	--	--	Y	--	Y
SO_x	Modeled Concentration	1.10	1.10	--	0.66	--	0.11
	NAAQS	196	1,300	--	365	--	80
	Modeled < NAAQS?	Y	Y	--	Y	--	Y
NO_x	Modeled Concentration	1.82	--	--	--	--	0.18
	NAAQS	188	--	--	--	--	100
	Modeled < NAAQS?	Y	--	--	--	--	Y
Lead	Modeled Concentration	--	--	--	--	0.00	--
	NAAQS	--	--	--	--	0.15	--
	Modeled < NAAQS?	--	--	--	--	Y	--
VOC	Modeled Concentration	--	--	--	--	--	--
	NAAQS	--	--	--	--	--	--
	Modeled < NAAQS?	--	--	--	--	--	--
CO	Modeled Concentration	1.49	--	1.34	--	--	--
	NAAQS	10,000	--	40,000	--	--	--
	Modeled < NAAQS?	Y	--	Y	--	--	--

Comparison With TAPs (µg/m³)

		Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled 3-month	Scaled Annual
Indeno(1,2,3-cd)pyrene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Hydrogen fluoride	Modeled Concentration	0.01	--	0.01	--	--	--
	Screening Level	16.37	--	4.09	--	--	--
	Modeled < Screening Level?	Y	--	Y	--	--	--
Hydrogen chloride	Modeled Concentration	1.45	--	1.31	--	--	0.15
	Screening Level	29.83	--	165.27	--	--	0.70
	Modeled < Screening Level?	Y	--	Y	--	--	Y
Dibenzo(a,h)anthracene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Fluorene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	20.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Fluoranthene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Zinc	Modeled Concentration	0.01	--	0.01	--	--	--
	Screening Level	1000.00	--	500.00	--	--	--
	Modeled < Screening Level?	Y	--	Y	--	--	--
Vanadium	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	0.50	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Thallium	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	0.20	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	Modeled Concentration	--	--	0.00	--	--	0.000000008
	Screening Level	--	--	0.26	--	--	0.00000003
	Modeled < Screening Level?	--	--	Y	--	--	Y
1,2,3,4,7,8,9-Heptachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,4,6,7,8-Heptachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000009
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	Modeled Concentration	--	--	0.00	--	--	0.000000001
	Screening Level	--	--	0.02	--	--	0.00000003
	Modeled < Screening Level?	--	--	Y	--	--	Y
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
2,3,4,6,7,8-Hexachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,7,8,9-Hexachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000003
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,6,7,8-Hexachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000002
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y

		Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled 3-month	Scaled Annual
1,2,3,4,7,8-Hexachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000002
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
2,3,4,7,8-Pentachlorodibenzofuran	Modeled Concentration	--	--	0.00	--	--	0.000000002
	Screening Level	--	--	0.04	--	--	0.00000003
	Modeled < Screening Level?	--	--	Y	--	--	Y
1,2,3,7,8-Pentachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	Modeled Concentration	--	--	0.00	--	--	0.000000000
	Screening Level	--	--	0.01	--	--	0.00000003
	Modeled < Screening Level?	--	--	Y	--	--	Y
2,3,7,8-Tetrachlorodibenzofuran	Modeled Concentration	--	--	--	--	--	0.000000001
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Modeled Concentration	--	--	--	--	--	0.0000000002
	Screening Level	--	--	--	--	--	0.00000003
	Modeled < Screening Level?	--	--	--	--	--	Y
Silver	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	0.10	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Molybdenum	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	5.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Selenium	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	2.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Pyrene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	20.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Lead	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	0.50	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Mercury	Modeled Concentration	0.07	--	0.06	--	--	--
	Screening Level	0.30	--	0.10	--	--	--
	Modeled < Screening Level?	Y	--	Y	--	--	--
Phenanthrene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	9.80	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Nickel	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	1.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Benz(a)anthracene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Copper	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	2.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Acenaphthene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	20.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Acenaphthylene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	24.64	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Anthracene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	20.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Antimony	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	5.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--

		Max 1-Hour	Scaled 3-Hour	Scaled 8-Hour	Scaled 24-Hour	Scaled 3-month	Scaled Annual
Barium	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	5.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Benzo(a)pyrene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Chromium	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	5.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Cobalt	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	0.20	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--
Chrysene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Arsenic	Modeled Concentration	--	--	0.00	--	--	0.0001
	Screening Level	--	--	0.10	--	--	0.0002
	Modeled < Screening Level?	--	--	Y	--	--	Y
Chromium VI	Modeled Concentration	--	--	0.00	--	--	0.00003
	Screening Level	--	--	0.10	--	--	0.00008
	Modeled < Screening Level?	--	--	Y	--	--	Y
Benzo(b)fluoranthene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Cadmium	Modeled Concentration	--	--	0.00	--	--	0.00002
	Screening Level	--	--	0.02	--	--	0.0006
	Modeled < Screening Level?	--	--	Y	--	--	Y
Beryllium	Modeled Concentration	--	--	0.00002	--	--	0.000003
	Screening Level	--	--	0.00050	--	--	0.000400
	Modeled < Screening Level?	--	--	Y	--	--	Y
Benzo(k)fluoranthene	Modeled Concentration	--	--	--	--	--	--
	Screening Level	--	--	--	--	--	--
	Modeled < Screening Level?	--	--	--	--	--	--
Benzo(ght)perylene	Modeled Concentration	--	--	0.00	--	--	--
	Screening Level	--	--	20.00	--	--	--
	Modeled < Screening Level?	--	--	Y	--	--	--

EMISSIONS TESTING
of the
FOSTER'S PET CREMATION SERVICE
B & L SYSTEMS, INC. BLP 750
ANIMAL CREMATORY INCINERATOR
Spring Hill, Florida

March 9, 2004

FDEP Permit No.: 1010377-002-AO
EU No. 003
SES Reference No. 04S61

Conducted by:

SOUTHERN ENVIRONMENTAL SCIENCES, INC.
1204 North Wheeler Street
Plant City, Florida 33563
Phone (813) 752-5014, Fax (813) 752-2475

Project Participants

Mark S. Gierke
Dale A. Wingler
Travis B. Nelson

SOUTHERN ENVIRONMENTAL SCIENCES. INC.

EMISSIONS TESTING
of the
FOSTER'S PET CREMATION SERVICE
B & L SYSTEMS, INC. BLP 750
ANIMAL CREMATORY INCINERATOR
Spring Hill, Florida

March 9, 2004

TABLE OF CONTENTS

1.0 INTRODUCTION

Southern Environmental Sciences, Inc. conducted emissions testing of the Foster's Pet Cremation Service animal crematory on March 9, 2004. This facility is located at 15204 County Line Road, Spring Hill, Florida. Testing was conducted for particulates, carbon monoxide and visible emissions. Oxygen (0_2) concentrations were measured to correct emission rates to 7% 0_2. Testing was performed to determine if the plant was operating in compliance with requirements of the Florida Department of Environmental Protection (FDEP).

2.0 SUMMARY OF RESULTS

The facility was found to be in compliance with all applicable emission limiting standards. Results of the particulate and carbon monoxide testing are summarized in Table 1. Particulate emissions from this source are limited to a maximum allowable concentration of 0.080 grains per dry standard cubic foot (corrected to 7% 0_2), and 0.30 pounds per hour. The average measured particulate concentration was 0.009 grains per dry standard cubic foot (corrected to 7% 0_2), and 0.031 pounds per hour, well within the limit. The maximum allowable carbon monoxide emissions concentration from this source is 100 parts per million, dry basis (corrected to 7% 0_2), and 0.17 pounds per hour. The average measured carbon monoxide emission concentration was 4.3 parts per million, dry basis (corrected to 7% 0_2), and 0.01 pounds per hour, well within the allowable limit.

A visible emissions evaluation was performed over a one hour period. The average

TABLE 1. EMISSIONS TEST SUMMARY

Company: FOSTER'S PET CREMATION SERVICE
Source: Animal Crematory Incinerator

	Run 1	Run 2	Run 3
Date of Run	3/9/04	3/9/04	3/9/04
Process Rate (lbs/hr)	124	124	124
Start Time (24-hr. clock)	1135	1302	1425
End Time (24-hr. clock)	1238	1403	1526
Vol. Dry Gas Sampled Meter Cond. (DCF)	35.293	36.308	37.298
Gas Meter Calibration Factor	0.986	0.986	0.986
Barometric Pressure at Barom. (in. Hg.)	30,14	30.14	30.14
Elev. Diff. Manom. to Barom. (ft.)	0	0	0
Vol. Gas Sampled Std. Cond. (DSCF)	34.324	34.476	35.476
Vol. Liquid Collected Std. Cond. (SCF)	8.020	6.794	5.913
Moisture in Stack Gas (`)/0 Vol.)	18.9	16.5	14.3
Molecular Weight Dry Stack Gas	29.04	29.12	29.30
Molecular Weight Wet Stack Gas	26.95	27.29	27.69
Stack Gas Static Press. (in. H2O gauge)	-0.01	-0.01	-0,01
Stack Gas Static Press. (in. Hg. abs.)	30.14	30.14	30.14
Average Square Root Velocity Head	0.164	0.175	0.178
Average Orifice Differential (in. H2O)	1.049	1.041	1.118
Average Gas Meter Temperature (°F)	80.6	93.7	92.9
Average Stack Gas Temperature (°F)	1240.3	1367.1	1359.6
Pitot Tube Coefficient	0.84	0.84	0.84
Stack Gas Vel. Stack Cond. (ft./sec.)	17.01	18.68	18.85
Effective Stack Area (sq. ft.)	1.77	1.77	1.77
Stack Gas Flow Rate Std. Cond. (DSCFM)	457	482	501
Stack Gas Flow Rate Stack Cond. (ACFM)	1,803	1,981	1,999
Net Time of Run (min.)	60	60	60
Nozzle Diameter (in.)	0.611	0.611	0.611
Percent Isokinetic	108.7	103.6	102.5

TABLE 1. EMISSIONS TEST SUMMARY (con't)

Company: FOSTER'S PET CREMATION SERVICE
Source: Animal Crematory **Incinerator**

	Run 1	Run 2	Run 3	
Date of Run	3/9/04	3/9/04	3/9/04	
Process Rate (lbs/hr)	124	124	124	
Start Time (24-hr. clock)	1135	1302	1425	
End Time (24-hr. clock)	1238	1403	1526	
Oxygen (%)	8,0	10.0	10.5	
				Average
Particulate Collected (mg.)	34.0	11.1	7.4	
Particulate Emissions (gr./DSCF)	0.015	0.005	0.003	0.008
Particulate Emissions (gr./DSCF @ 7% 02)	0.016	0.006	0.004	0.009
Allowable Part. Emissions (grJDSCF @ 7% 02)				0.080
Particulate Emissions (lb./hr.)	0.060	0.021	0.014	0.031
Allowable Part. Emissions (113./hr.)				0.30
CO Emissions (PPM)	3.08	2.25	5.00	4.3
CO Emissions (PPM @ 7% 02)	3.3	2.9	6.7	4.3
Allowable CO Emissions (PPM @ 7% 02)				100
CO Emissions (1b./hr.)	0.006	0.005	0.011	0,007
Allowable CO Emissions (1b./hr.)				0.12

Note: Standard conditions 68°F, 29.92 in. Hg

maximum six minute opacity was zero percent, well within the allowable limit of 5 percent.

3.0 PROCESS DESCRIPTION

The B & L Systems, Inc. Model BLP 750 Series crematory incinerator cremates animal remains in an environmentally acceptable manner. Emissions are controlled by an afterburner. The afterburner is preheated and maintained at a minimum operating temperature of 1600°F prior to ignition of the primary chamber. The unit is designed to be charged with a maximum of 750 pounds of animal remains and incinerate at a maximum rate of 150 pounds per hour with a maximum heat input of 2.00 MMBTU per hour (primary chamber 1.00 MMBTU per hour, secondary chamber 1.0 MMBTU/hr), each chamber fired exclusively on propane gas only. The time required for complete incineration depends upon the total weight of the waste. Process operational data was provided by facility personnel and is included in the appendix.

4.0 SAMPLING PROCEDURES

4.1 Methods

All sampling was performed using methods currently acceptable to the FDEP. Particulate sampling and analyses were conducted in accordance with EPA Method 5 Determination of Particulate Emissions from Stationary Sources, 40 CFR 60, Appendix A-3. Carbon monoxide emissions were conducted in accordance with EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources, 40 CFR 60, Appendix A-4. The oxygen content of the stack gas was determined in accordance with EPA Method 3B Gas

Analysis for the Determination of Emission Rate Correction Factor or Excess Air, 40 CFR 60, Appendix A-2. The visible emissions evaluation was performed using procedures described in EPA Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources, 40 CFR 60, Appendix A-4.

4.2 Sampling Locations

Locations of the sample ports and stack dimensions are shown in Figure 1. Particulate sampling was accomplished by conducting horizontal traverses through each of two ports located on the stack at a ninety degree angle from one another. Twenty four sample points were chosen in accordance with EPA Method 1 - Sample and Velocity Traverses for Stationary Sources, 40 CFR 60, Appendix A-1. Carbon monoxide and oxygen sampling were performed from the same sampling ports as the particulate sampling.

4.3 Sampling Trains

The particulate sampling train consisted of a Nutech Corporation 3 foot quartz lined probe and nozzle, a heated glass fiber filter and four impingers arranged as shown in Figure 2. Flexible tubing was used between the heated filter and the impingers. The first two impingers were each charged with 100 milliliters of water, the third served as a dry trap and the fourth impinger was charged with indicating silica gel desiccant. The impingers were cooled in an ice and water bath during sampling. A Nutech Corporation control console was used to monitor the gas flow rates and stack conditions during sampling.

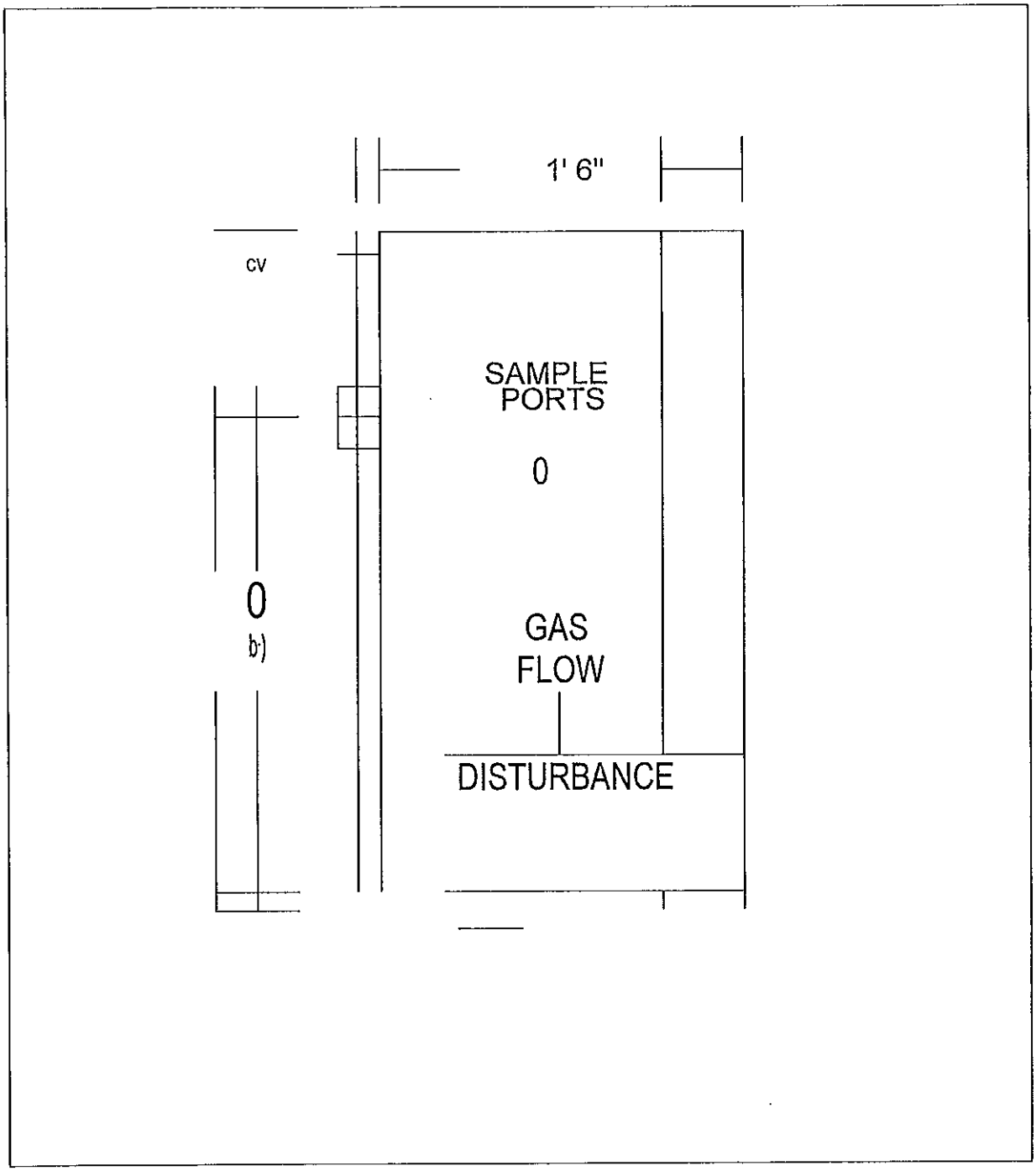
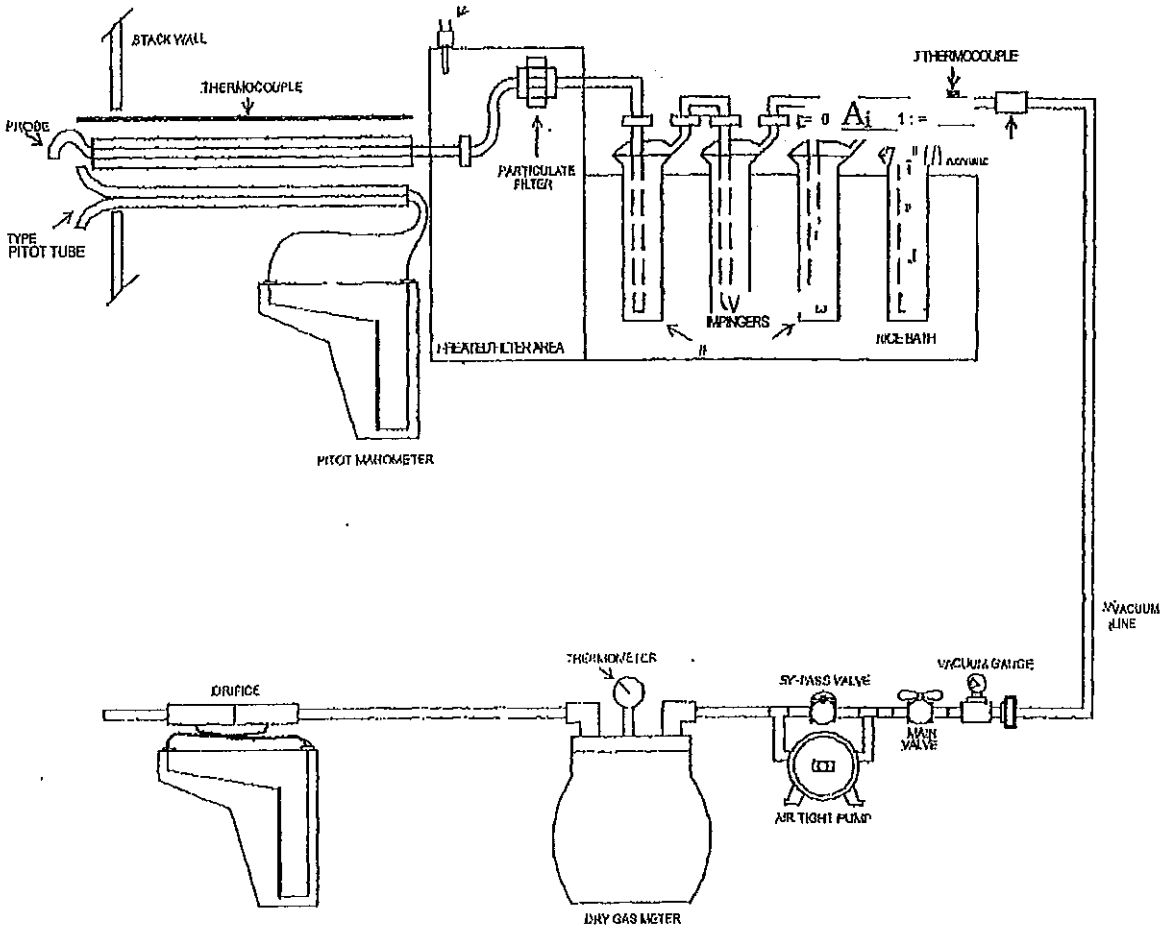


Figure 1. Stack Dimensions and Sample Port Locations, Foster's Pet Cremation Service, Animal Crematory Incinerator, Spring Hill, Florida.

THERMOCOUPLE

Figure 2. EPA Method 5 Sampling Train.



The carbon monoxide sampling train consisted of a stainless steel probe, teflon sample line, condenser, silica gel and carbon dioxide adsorbent tubes and a Thermo Environmental Instruments, Inc, Model 48 Gas Filter Correlation CO analyzer arranged as shown in Figure 3. The oxygen sampling train consisted of a probe, sample line, tedlar bag in a rigid container, valve, vacuum pump, and flow meter.

4.4 Sample Collection

Prior to particulate sampling, the pitot tubes were checked for leaks and the manometers were zeroed. A pretest leak check of the particulate sampling train was conducted by sealing the no77le and applying a 15" Hg vacuum. A leak rate of less than 0.02 cubic feet per minute was considered acceptable. Particulate sample was collected isokinetically for two and one half minutes at each of the points sampled.

The carbon monoxide analyzerwas calibrated immediately prior to the beginning of the test and checked after each run by introducing known gases into the instrument through the sampling train.

The tedlar bag used for obtaining an integrated oxygen sample was leak checked prior to the test by pressurizing it to 2 to 4 in. H_2O and allowing it to stand overnight. The bag was considered leak free if it remained inflated. A one hour integrated sample was obtained at a rate 0.5 liters per minute for each run.

Carbon monoxide and oxygen sampling were conducted simultaneously with particulate

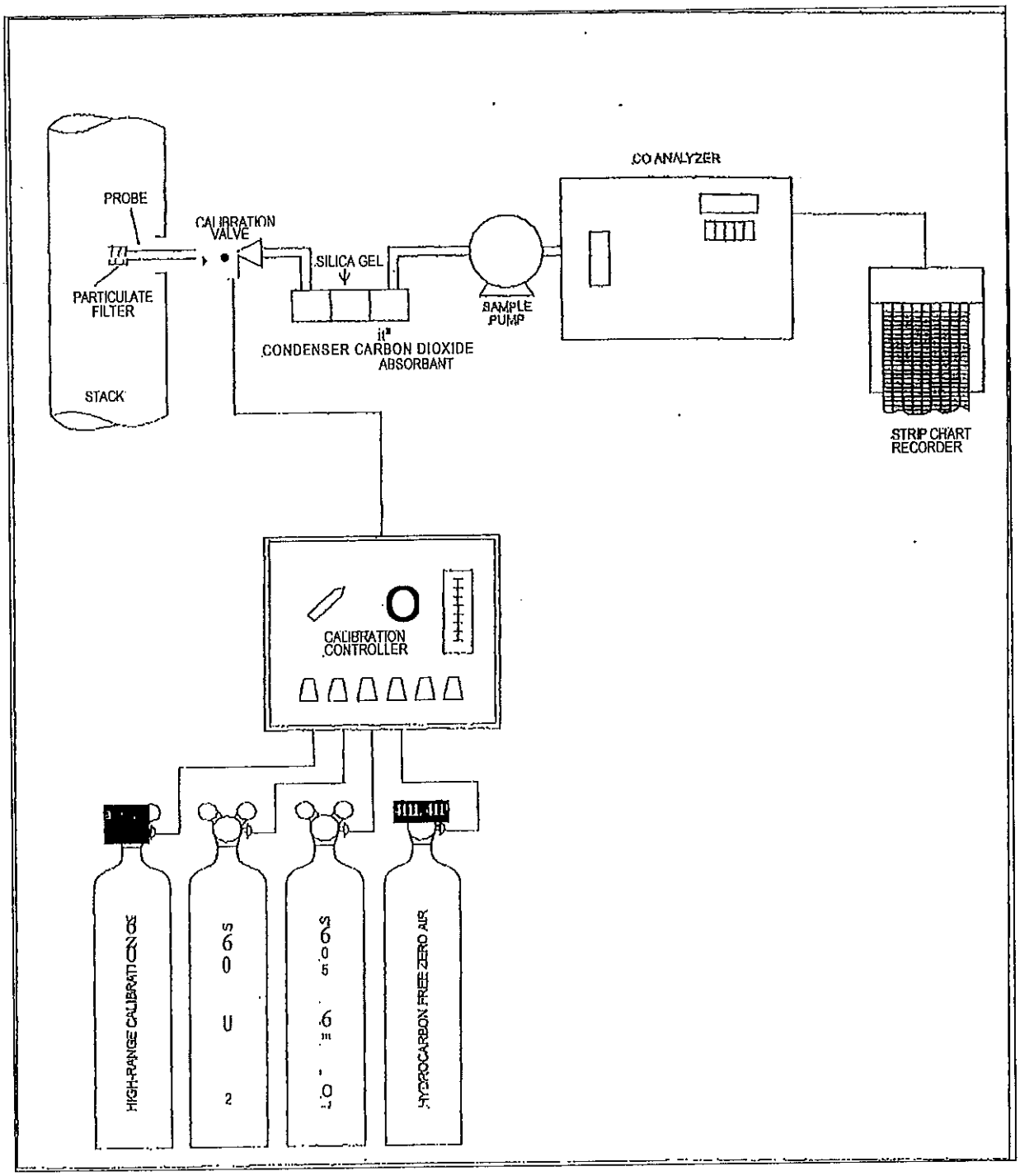


Figure 3. EPA Method 10 Sampling Train.

sampling.

4.5 Sample Recovery

A post test leak check of the particulate sampling train was performed at the completion of each run by sealing the nozzle and applying a vacuum equal to or greater than the maximum value reached during the sample period. A leak rate of less than 0.02 CFM or 4 percent of the average sampling rate (whichever was less) was considered acceptable. The nozzle and probe were then brushed and rinsed with reagent grade acetone and the washings were placed in clean polyethylene containers and sealed. The glass fiber filter was removed from the holder with forceps and placed in a covered petri dish for return to the laboratory. The front half of the filter holder was rinsed with acetone and the washings were added to the no77le and probe wash. The contents of the first three impingers were measured volumetrically and the silica gel in the fourth impinger was weighed to the nearest 0.1 gram for determination of moisture content.

Two calculations of the moisture content of the stack gas were made for each run, one from the impinger analysis and one from the assumption of saturated conditions based upon the average stack gas temperature and a psychrometric chart as described in EPA Method 4, Determination of Moisture Content in Stack Gases, 40 CFR 60, Appendix A. The lower of the two values of moisture content was considered to be correct and was

used in the emissions computations.

5.0 ANALYTICAL PROCEDURE

5 . 1

5.1 Pretest Preparation

The glass fiber filters for the particulate train were numbered, oven dried at 105°C for two to three hours, desiccated and weighed to a constant weight in preparation for the test, Results were recorded to the nearest 0.1 milligram. Filters were loaded into holders and a filter was set aside as a control blank. The impingers were charged as described in section 4.3 and the contents of the fourth impinger were weighed to the nearest 0.1 gram.

5.2 Analysis

Upon return to the laboratory, the particulate filters were removed from the containers with forceps, dried at 105°C for two to three hours, desiccated and weighed to a constant weight. Results were recorded to the nearest 0.1 milligram. The probe and nozzle washes and an acetone blank were measured volumetrically and transferred to clean, tared evaporating dishes and evaporated to dryness over low heat. The evaporating dishes were then oven dried at 105°C for two to three hours, desiccated and weighed to a constant weight. Results were recorded to the nearest 0.1 milligram. The total particulate reported is the sum of the filter weight gain and the weight gain of the evaporating dishes, corrected for the acetone blank.

APPENDIX

Project Participants

Certification

Visible Emissions Evaluation

Process Operational Data

Laboratory Data

Temperature Recording Chart

Field Data Sheets

CO Analyzer Strip Chart

Calibration Data

Calculations and Symbols

PROJECT PARTICIPANTS AND CERTIFICATION

FOSTER'S PET CREMATION SERVICE
B & L SYSTEMS, INC. BLP 750
ANIMAL CREMATORY INCINERATOR
Spring Hill, Florida

March 9, 2004

Project Participants:

Mark S. Gierke Dale A. Wingler Travis B. Nelson	Conducted the field testing.
Fred T. Smith II (Foster's Pet Cremation)	Provided process rates.
Mark S. Gierke	Performed visible emissions evaluation.
Kenneth M. Roberts	Performed laboratory analyses.
Dale A. Wingler	Prepared the final test report.

Certification:

I certify that to my knowledge all data submitted in this report is true and correct.

Mark S. Gierke

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

1204 North Wheeler Street, Plant City, Florida 33566 181 3)752-5014

VISIBLE EMISSIONS EVALUATION

COMPANY r : . /-, ,,1

U N I T a

ADDRESS ,5ãc'.1 c o 00- 1:_ t_,1)lc_ k_

SP tt1ᵗ ⁹,1(,

PERMIT NO. L377 002 #0

COM/XI:NCO YES NO ☐

AIRS NO. /0 i 037 7

EU NO. = 00 ,,

PROCESS RATE 10 1ᵇ 6¹⁷⁶¹ o ti f b5 1hr

PERMITTED, RATE 500 (, ʳ...)⁹i⁹h 15ᶜ tbsihr

PROCESS EQUIPMENT 6+) 6ocl is o c 0 NI rt) f ....

CONTROL EQUIPMENT 0 o, / y t/e V2'--Crit (o

OPERATING MODE NokI.Go,<. ⊢A

AMBIENT TEMP. (°F) START ˉ70 STOP? 5

HEIGHT ABOVE GROUND LEVEL START/L/4o 1 STOP

HEIGHT REL. TO OBSERVER START,A,,;1,2,,' STOR..

DISTANCE FROM OBSERVER START 110' STOP.-ytv,r0, ,9

DIRECTION FROM OBSERVER START 3,7; ..,0 STOP -.)K..,4)

EMISSION COLO KO t'--¹

PLUME TYPE CONTIN. ☐ INTERMITTENT ☐

WATER DROPLETS PRESENT NO YES ☐

IS WATER DROPLET PLUMEP(71- ATTACHED 0 DETACHED ☐

POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED STARTs -1--,,cV G: Ki.-t- STOP.6.,?

DESCRIBE BACKGROUND START r,.._,---y- STOP (cric...,_,..

BACKGROUND COLOR STARTC1 I₁₄ "viCSTOP00-ry.e.--

SKY CONDITIONS START J_ 'it STOP

WIND SPEED IMPHI START ˉy - ID STOP

WIND DIRECTION STOPS

AVERAGE OPACITY FOR HIGHEST PERIOD _.7 I IJ t?,:,

RANGE OF OPAC. READINGS MIN. 0 MAX. ()

SOURCE LAYOUT SKETCH ----11_

DRAW NORTH ARROW

Emission Point

Sun * Wind

Plume and Stack

Observer's Position

Sun Location Line

Wes-c) -,,3

COMMENTS Sey, c,),,,it ,;(:),-,.L, 1 7. , cl 3

OBSERVATION DATE 3/9/04

START TIME

STOP TIME 1235

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
0	IIIIIIIIIIMI				30	0	0	0	0
1	0	MIIME			31	0	0	0	0
2	1511 0				32	0	0	0	0
3	Mil				33	0	0	0	0
4	0	FRIMINN			34	0	0	0	0
5	TRINIPAIM				35	0	0	0	0
6	M o o n				36	0	0	0	0
7	MEOW=				37	0	0	0	0
8	P A M =				38	0	0	0	0
9	MENEM				39	0	0	0	0
10					40	0	0	0	0
11	MGM			0	41	0	0	0	0
12	I M E S =				42	0	0	0	0
13	MEI				43	0	0	0	0
14	Min 01E1				44	0	0	0	0
15	IIIIIIIIIMINII				45	0	0	0	0
16	ISIta o fa				46	0	0	0	0
17					47	0	0	0	0
18					48	0	0	0	0
19	U1R11021				49	0	0	0	0
20	EI Oc)				50	0	0	0	0
21	wawa				51	0	0	0	0
22	M E M =				52	0	0	0	0
23					53	0	0	0	0
24	M E M			0	54	0	0	0	0
25	IIME1				55	0	0	0	0
26	11111=11511				56	0	0	0	0
27	IIIIIII		0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0

Observer: ((1oii i h 2

Certified by: Certified at:

Date Certified: 2/01 Exp. Date: 8/04

Signature:

Title:

PROCESS WEIGHT STATEMENT

DATE 3/ ____ SAMPLING TIME : FROM 11:3-5 A.m. TO 31,Zr P.M.

STATEMENT OF PROCESS WEIGHT

COMPANY	F0,51i I" IS 04-C m qri rllc
MAILING ADDRESS	c .
	169,,o/-1 4106 Rd.
SOURCE IDENTIFICATION	I4t 11V 3 (g o 0
SOURCE LOCATION	Spring Hill, FL

DATA ON OPERATING CYCLE TIME

START OF OPERATION TIME		
END OF OPERATION TIME		
TOTAL ELAPSED TIME		
IDLE TIME DURING CYCLE		
DESIGN PROCESS RATING	PROCESS WEIGHT RATE (INPUT)	
	PRODUCT (OUTPUT)	

1-07 165 lie 9T(1-1-\

DATA ON ACTUAL PROCESS RATE

		RATE	R#1 124 lbs/hr
MATERIAL	" "	RATE	R#2 124 lbs/hr
MATERIAL	" "	RATE	R#3 124 lbs/hr
	AVERAGE PROCESS WEIGHT	RATE	
PRODUCT		RATE	
PRODUCT		RATE	
PRODUCT		RATE	

DURING OPERATION CYCLE

firi; 02 qt. „It

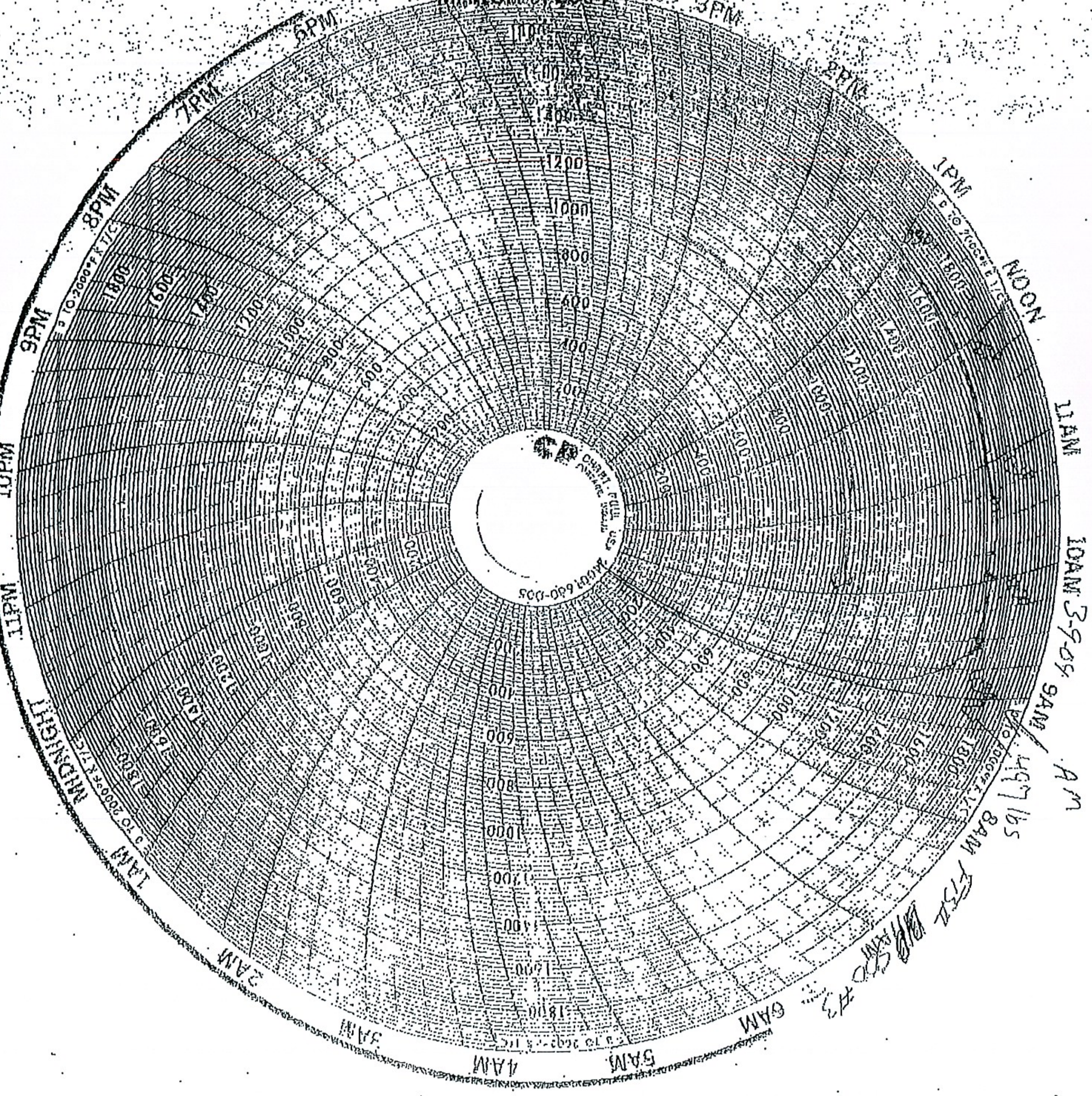
I certify that the above information is true and correct to the best of my knowledge.

Name (PLEASE PRINT)

Operator

Signature

FOSTER'S PET CREMATION SERVICE
ANIMAL CREMATORY INCINERATOR
MARCH 9, 2004



SOUTHERN ENVIRONMENTAL SCIENCES, INC.

PARTICULATE MATTER COLLECTED

Plant: FOSTER'S PET CREMATION SERVICE
Unit No. ANIMAL CREMATORY INCINERATOR
Test Date: 03/09/2004 Analyzed by: IDW

Acetone blank container no.	106	Filter blank no.	7158
Acetone blank volume, ml.,(Va)	200	Filter blank tare weight, g.	0.3691
Acetone blank final weight, g.	104.2163	Filter blank final weight, g.	0.3692
Acetone blank tare weight, g.	104.2159	Filter weight diff., g.	-0.0001
Acetone blank weight diff.,g.,(ma)	0,0004		

Run No.	1
Filter No.	7111
Liquid lost during transport, ml.	0
Acetone wash container no.	23
Acetone wash volume, ml. (Vaw)	100
Acetone wash residue, g. (We)	0.0002

			[lao.,'
	F fight...	IWOWA14k	r.,OP 4ain:.
1 (Filter)	0.3935	0.367	0.0265
2 (Wash)	100.6231	100.6154	0.0077
		TOTAL	0.0342
		Less acetone blank, g. (Wa)	0.0002
		Weight of particulate matter, p.	0.0340

Run No.	2
Filter No.	7113
Liquid lost during transport, ml.	0
Acetone wash container no.	43
Acetone wash volume, ml. (Vaw)	95
Acetone wash residue, g. (We)	0.0002

Container number	WEIGHT Oh PAKTICULeiit		
	Final Weight	Tare Weight	Weight Gain
1 (Filter)	0.3686	0.3661	0.0025
2 (Wash)	108.7303	108.7215	0.0088
		TOTAL	0.0113
		Less acetone blank, g. (Wa)	0.0002
		Weight of particulate matter, g.	0.0111

Run No.	3
Filter No.	7117
Liquid lost during transport, ml.	0
Acetone wash container no.	4
Acetone wash volume, ml. (Vaw)	105
Acetone wash residue, g. (Wa)	0.0002

CoE al er	W Et OF R Rer.t'Li		
P't	nal .'W401	TAII,P. &Pit	WS4.,gigh ,.?,, 'alb
1 (Filter)	0.3695	0.3692	0.0003
2 (Wash)	103.1044	103.0971	0.0073
		TOTAL	0.0076
		Less acetone blank, g. (Wa)	0.0002
		Weight of particulate matter, g.	0.0074

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

MOISTURE COLLECTED

Plan: Foster's Cemetery

Unit: Animal Incinerator
Date: 3/9/04
Run No.: 1

Impinger Number	1	2	3	4	Weighed by:
Final Weight (grams):	260.0	100.0	0	261.0	
Initial Weight (grams):	100.0	100.0	0	250.9	
Difference (grams):	160.0	0	0	10.1	
Total Condensate (grams):				170.1	

Unit: Animal Incinerator
Date: 3/9/04
Run No.: 2

Impinger Number	1	2	3	4	Weighed by:
Final Weight (grams):	230 0	106.0	0	26-3.1	
Initial Weight (grams):	100.9	100.0	0	245.8	
Difference (grams):	11-30.	6.0	0	8.1	
Total Condensate (grams):				144.1	

Unit: Animal Incinerator
Date: 3/9/04
Run No.: 3

Impinger Number	1	2	3	4	Weighed by:
Final Weight (grams):	210.0	106.0	0	255.0	
Initial Weight (grams):	100.0	100.0	0	245.6	
Difference (grams):	110.0	6.0	0	9.4	

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

Page

FIELD DATA SHEET

Company cee' ?''"))w'c'a

Source f-

Operator(s)

Dimensions Diat-

LxWO

Static Press. ("H20) -.01

Meter Box No. 002

AH@ 1.726

Meter Correction .986

Factor .84

Pitot Tube Cp Quartz

Nozzle ID .611

Nozzle Dia. (Inches) 3' Quartz

Probe Length/Liner

Run Number

Date

24 hr Time at Start

24 hr Time at End

Filter No(s).

Barometric Pressure ("Hg)

Elev Diff. Mano. To Barom. (Ft)

Meter

Ambient Temperature (°F)

Assumptions

% Moisture 14

Stack Temp. 1000 /1

Meter Temp. 75

Md/Ms 1.05

K Factor ty:2}17/37.5i

Sample Train Leak Check:

Initial 0 22 CFM @ /5 "Hg

Final b.cio CFM @ /10

Final Pitot Tube (-) +1

,as NapehIG

"Hg

Initial Pitot Tube (-) +1

Moist. Collected - Imp. No. 1

Point No.	Sample Time (min.)	Meter Vol Vm (ft³)	Vel. Head ΔP ("H2O)	Orifice ΔH ("H2O)	Stack Temp. Ts (°F)	Meter Temp. Tm (°F)	Hot Box Temp (°F)	Exit Temp (°F)	Pump Vacuum ("Hg)	Other
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
3		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
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7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
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10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
11	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
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18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
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SOUTHERN ENVIRONMENTAL SCIENCES, INC.

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

Page

FIELD DATA SHEET

Company 1 ·)4-(5 d c Cte, tin Scqice
Source Animal Crematory
Operator(s) D Wigler / T Nelson

Dimensions Did(LxWD t i "

Static Press. (H2O)- "-.01
Meter Box No. 002
Meter ΔH@ 1.726
Meter Correction Factor .996
Pitot Tube Cp .84
Nozzle ID Quartz
Nozzle Dia. (Inches) .611
Probe Length/liner 3' Quartz

Run Number
Date
24 hr Time at Start 1302
24 hr Time at End 1403
Filter No(s). 7113
Barometric Pressure ("Hg) 30.14
Elev Diff. Mano. To Barom. (Ft) 0
Ambient Temperature (°F) 72

Assumptions
% Moisture 6
Stack Temp. 131)0
Meter Temp.
Md/Ms
K Factor

Sample Train Leak Check:
Initial 0,b0? CFM "Hg
Final CFM "Hg
Initial Pitot Tube (-) /I+)
Final Pitot Tube (-))

Moist. Collected - Imp. No. 1 | Imp. No. 2 | 3 | Imp. No. 4 | | Total | | are Wt

Point No.	Sample Time (min.)	Meter Vol Vm (ft³)	Vel. Head ΔP ("H2O)	Orifice Diff. ΔH ("H2O)	Stack Temp. Ts (°F)	Meter Temp. Tm (°F)	Hot Box Temp. (°F)	Exit Temp. (°F)	Pump Vacuum ("Hg)	Other
1	0	V	a	h. -						
3	5									
4									(0	
5	.0			(Af						
6	/)					63				
	15								0	
8	17.5	5 0	(x's	i.o.	131/0					
9	:0		,t3		1's to				7-0	
	IC					62				
12	7.5									
14	1·5								(0	
163	5		b35			17C			(0	
15	37.5								/	
17	V									
19	0.0	(O		1						
19										
2	7.5									
22	DO		O'			9(			OEM	
23			0	,IC	(377					

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

FIELD DATA SHEET

Company		Run Number	3
Source		Date	3/9/04
Operator(s)	[illegible] / [illegible] Nelson	24 hr Time at Start	1426
		24 hr Time at End	1526
Dimensions DiaRI		Filter No(s).	97117
LxW		Barometric Pressure ("Hg)	30.14
Static Press. ("H2O)	6(	Elev Diff. Mano. To Barotn. (Ft)	0
Meter Box No.	002	Ambient Temperature (°F)	72
Meter ΔH@	1.724		
Meter Correction Factor	.986		
Pitot Tube Cp	.84		
Nozzle ID	Quartz		
Nozzle Dia, (Inches)	.611		
Probe Length/Liner	3' Quartz		

Assumptions

% Moisture	12
Stack Temp.	1375
Meter Temp.	95
Md/Ms	1.05
K Factor	35.17

Sample Train Leak Check:

Initial ______ CFM @ 15 "Hg

Final D-bod CFM @ ______ "Hg

Initial Pitot Tube (-) ____

Final Pitot Tube (-) ✓(+)

Moist. Collected:- Imp. No. 1 ___ Imp. No. 2 ___ Imp. No. 3 ___ Total ___ Filter Tare Wt ___

Point No	Sample Time (min)	Meter Vol Vm (ft³)	Vel. Head ΔP ("H₂O)	Orifice Diff ΔH ("H₂O)	Stack Temp Ts (°F)	Meter Temp Tm (°F)	Hot Box Temp (°F)	Exit Temp (°F)	Pump Vacuum ("Hg)	Other
1	0	[illegible]	[illegible]	[illegible]	1395	[illegible]	[illegible]	[illegible]	[illegible]	
2	[illegible]	123.00	.636	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
13	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
14	[illegible]	[illegible]	[illegible]	[illegible]	1310	[illegible]	[illegible]	[illegible]	[illegible]	
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

GAS ANALYSIS DATA FORM

GAS ANALYSIS DATA FORM

				Net	Actual Reading	Nat	Average Net Value	Multiplier	Molecular Weight of Stack Gas (Dry Basis) (Md)
				4.5	4.5	4.5	4.5	.44	
				10.0	14.0	10.0	10.0	.88	
								.28	
								.28	
								TOTAL	

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

GAS ANALYSIS DATA FORM

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
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[illegible]			[illegible]		[illegible]		[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.0	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]								[illegible]	
[illegible]									
							1	[illegible]	

SOUTIERN ENVIRONMENTAL SCIENCES, INC.
NOZZLE CALIBRATION

Date: (Pi by: Ci;

Nozzle ID	Run No,	Di (INCHES(	D2 (INCHES!	D, (INCHES!	AD (INCHES!	DAVG (INCHES!
(7) „ .	i :3		,6·/1	, 61	* obc)	e G t(

where: Di, D2, D3 — Nozzle diameter measured on a different diameter (inches). Tolerance = 0.001 inches

LD — Maximum difference in any two measurements (inches). Tolerance = 0.004 inches

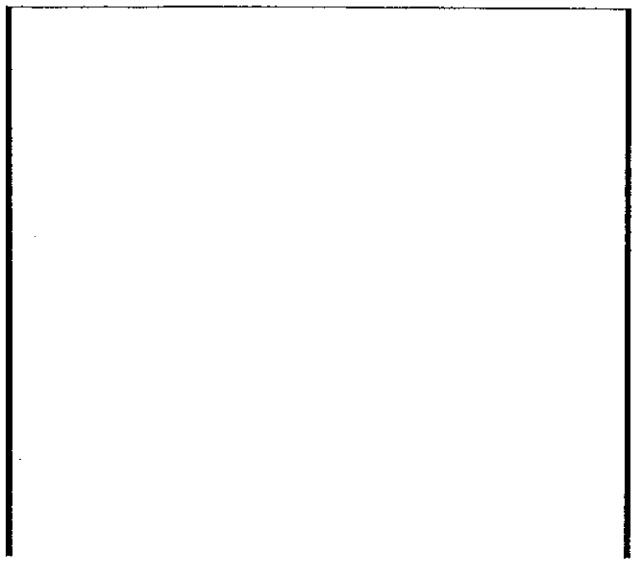
D, — Average of Di,D2,(3[1]

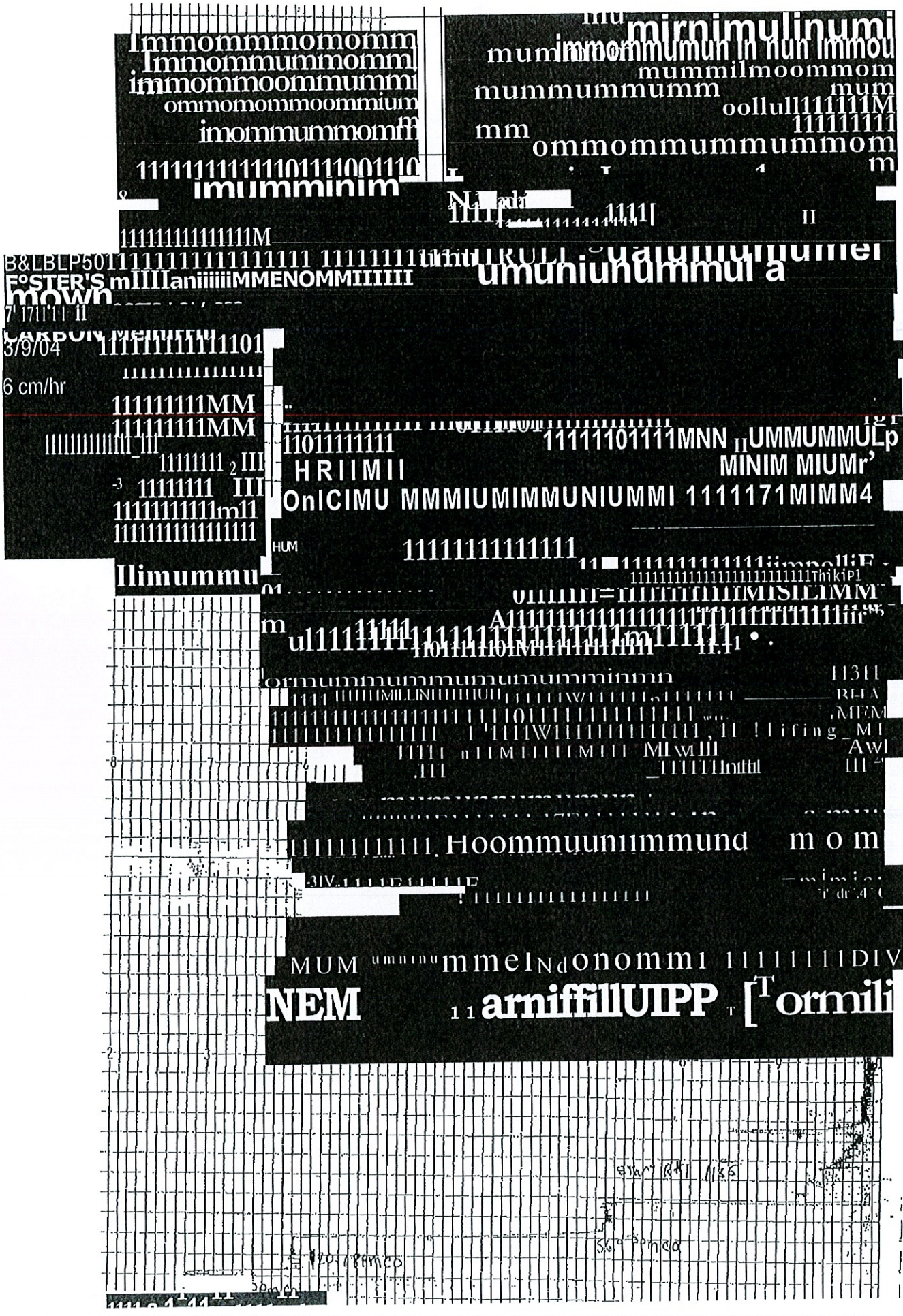
-X-** *

SAMPLE POINT LOCATIONS

---1-
Source: eM,ti. --r . 0 e Cte' -,IC,
Date: 3 1·0· 4
Stack/Duct Dimensions: /
Port Length:
Points corrected for port length? Yes No No ❑
Sketch of Stack/Duct

Point No.	Distance from Duct Wall (inches)
f	3 vi)-
,)	s'-1
Li	C-1
	-7.,C •
	/ hi
7	iii,
"(-	1C,S-
el	t i f f
10	ft `1
I(	i'l,
r,)-	•0,;--




F°STER'S
3/9/04
6 cm/hr
HRIIMII
MINIM MIUMr'
NEM
MUM
arniffillUIPP

GOUTHEIM EtIVIROMI1ENTAL c'CIENCES, INC.

DRY GAS METER CALIBRATION

Meter Box Number: 002 Barometric Pressure: 29,99
Date: 07/03/2003 Wet Test Meter No.: P-576

0.50	5.000	5,155	**76.0**	86.5	**12.15**	0.988	1.641
1.00	5.000	5.196	76.0	91.0	8.88	0.987	1.738
1,50	10.000	10.428	76.0	93.0	**14.28**	0.986	1.680
2.00	10.000	10.470	75.5	95.0	12.50	0.985	1.707
3.00	10.000	10.489	75.0	97.0	**10.43**	0.985	1.773
4.00	10.000	10.485	75.0	98.0	9.15	0.985	1.816
						0.986	1.726

Delta H@ Acceptable Range 1.926 to 1.526
Yi Acceptable Range 1.006 to 0.966

$$Yi = \frac{Vw\ Pb\ (Td + 460)}{Vd\ (Pb + DeltaH/13.6)\ (Tw + 460)}$$

$$Delta\ H@ = \frac{.0317\ (DeltaH)}{Pb\ (Td + 460)} [(Tw + 460)\ (Theta)/Vw]^2$$

Where:

Vw = Gas Volume passing through the wet test meter, ft.^3.
Vd = Gas Volume passing through the dry gas meter, ft.^3
Tw = Temperature of the gas in the wet test meter, deg F.
Tdi = Average temperature of the gas in the dry gas meter, deg F.
Delta H = Pressure differential across orifice. in. H20.
Yi = Ratio of accuracy of wet test meter to dry gas-meter for each run.
Y = Average ratio of accuracy of wet test meter to dry gas meter for all three runs; tolerance = pretest Y =/- 0.05Y.
Pb = Barometric pressure, in. Hg
Theta -= Time of calibration-run,min. ___ -

SOUTKR.N 1NVIRONMENTAL SCIENCES, INC.

POSTTEST DRY GAS METER CALIBRATION FORM

Meter Box Number: 002
Date: 03/24/2004
Barometric Pressure: 30,38
Wet Test Meter No,: P-576
Pretest Y: 0.986
Calibrated by: *TW*

2.00	10.000	10.363	71.5	78.0	12.57	10.00	0.972
2.00	10.000	10.503	71.0	86.0	12.62	10.00	0.974
2.00	10.000	10.632	71.0	93.0	12.67	10.00	0.975
						Average	0.974

Acceptable Limits 0.937 to 1.035

$$Yi = \frac{Vw\ Pb\ (Td + 460)}{Vd\ (Pb + DeltaH/13.6)\ (Tw + 460)}$$

Where:

Vw = Gas volume passing through the wet test meter, ft.^3.
Vd = Gas volume passing through the dry gas meter, ft.^3.
Tw = Temperature of the gas in the wet test meter, deg F.
Tdi = Temperature of the inlet gas of the dry gas meter, deg F.
Tdo = Temperature of the outlet gas of the dry gas meter, deg F.
Delta H = Pressure differential across orifice. in. H20.
Yi = Ratio of accuracy of wet test meter to dry gas meter for each run.
Y = Average ratio of accuracy of wet test meter to dry gas meter for all three runs; tolerance = pretest Y =/- 0.05Y.
Pb = Barometric pressure, in. Hg
Theta = Time of calibration run, min.

THERMOMETER CALIBRATIONS

Wet Test Meter		Dry Gas Meter		
Inlet Deg F	Outlet Deg F	Inlet Deg F	Outlet Deg F	Deg F
75.0	n/a	73.0	n/a	73.0
Difference	n/a	2.0	n/a	2.0

Quality Control Limits = +/- 5 Deg F

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

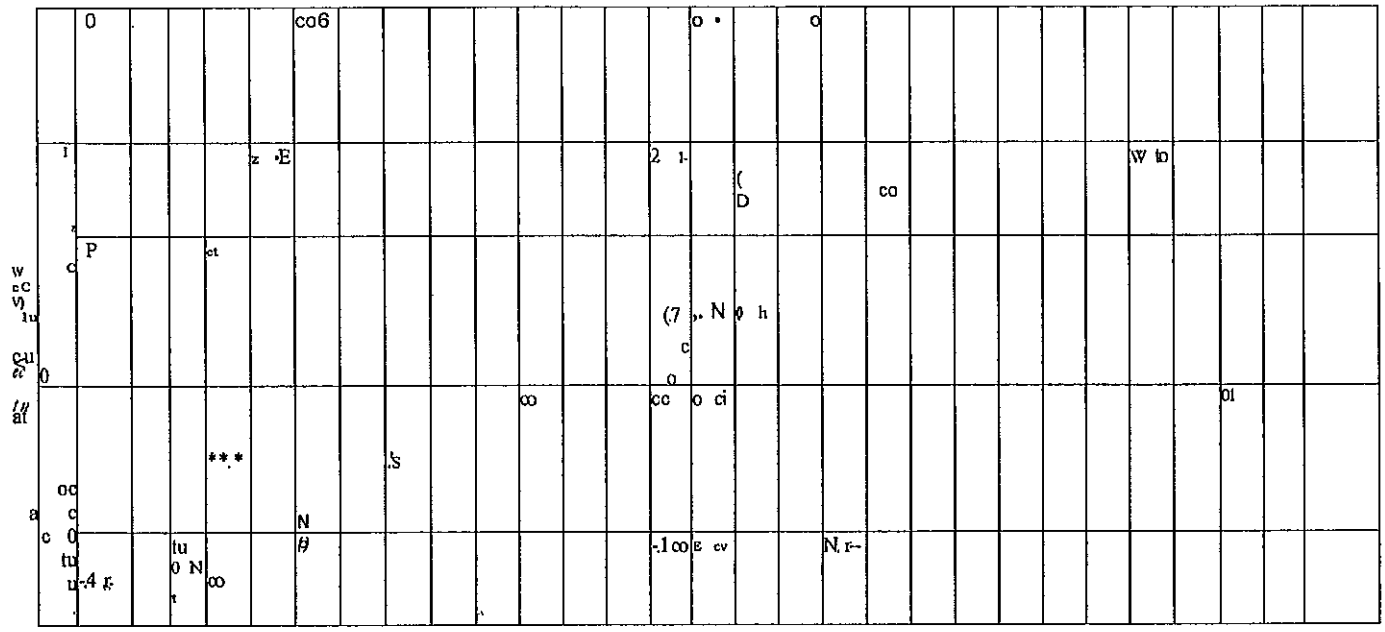
TYPE S PITOT TUBE INSPECTION FORM

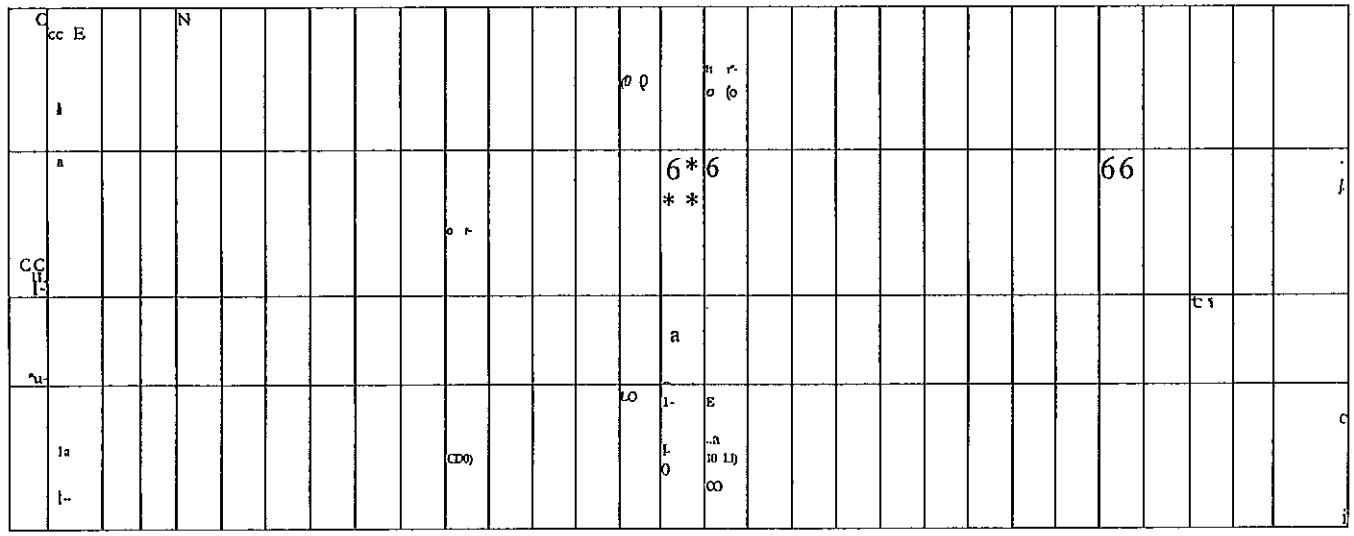
PITOT TUBE ID NUMBER	003INC	
PITOT TUBE INSPECTION DATE	03/31/03	
INSPECTOR	T. Wilson	
ALL DIMENSIONS WITHIN SPECIFICATIONS	YES	NO
PITOT TUBE ASSEMBLY SPECIFICATIONS	YES (explain please)	NO

ANGLE	MEASUREMENT	LIMIT
α1	2°	<10°
a2	3°	<10°
b1	3°	<5°
b2	2°	<5°
Y	2°	
θ	3°	
A	.290 inches	
z = A sin Y	.010 inches	< 1/8 inch
w = A sin θ	.015inches	< 1/32 inch
Pa	.145 inches	
Pb	.145 inches	
Dt	.190 inches	

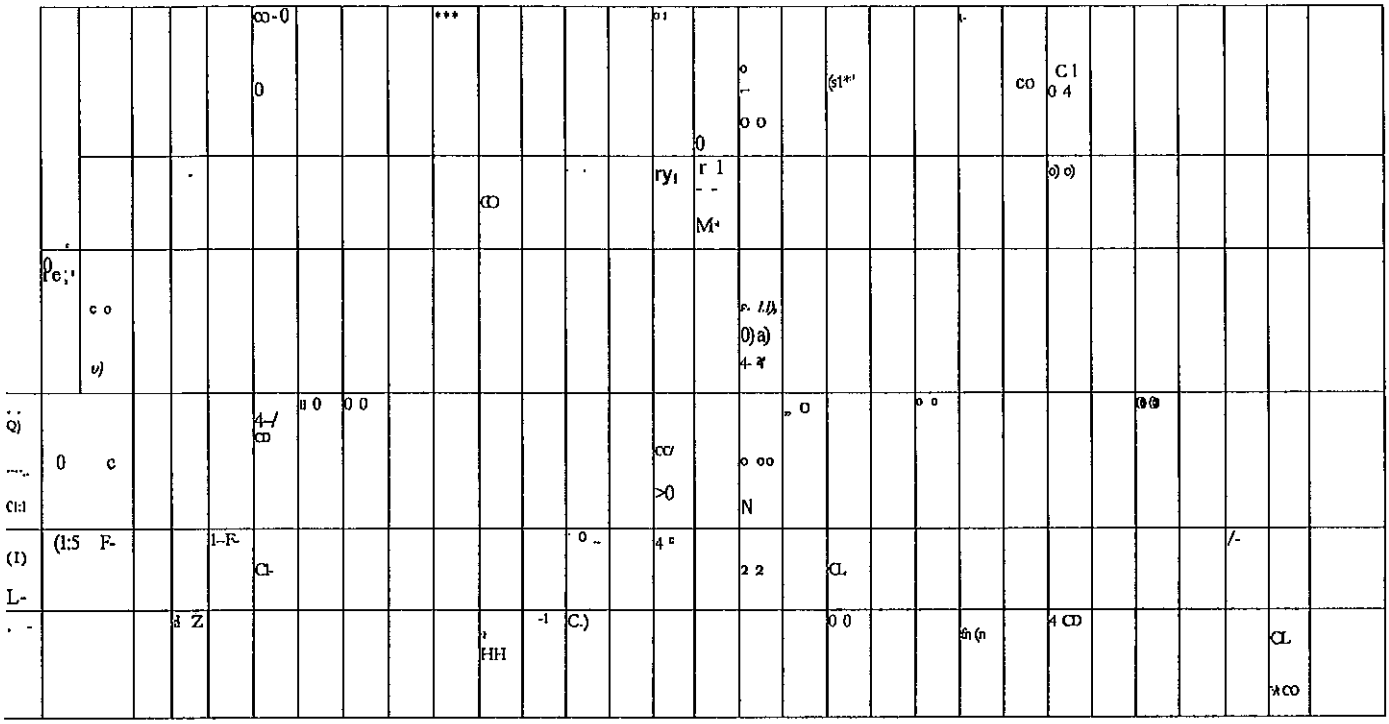
COMMENTS:

CALIBRATION REQUIRED	YES	NO





SOUTHERN ENVIRONMENTAL SCIENCES, INC.



SOUTHERN ENVIRONMENTAL SCIENCES, INC.

PRESSURE MEASUREMENT DEVICE CALIBRATION FORM

Device Type	Magnehelic	Calibration Date	0410112003
Range	0 - .25" H2O	Calibrated by	K. Roberts
Manufacturer	Dwyer	Reference Device	, Manometer
Serial No.	R991014CA18	Measurement Units	H2O

Device Reading	Reference Device Reading	% Difference*
0	0	0.00
0.059	0.06	-1.67
0.119	0.12	-0.83
0.18	0.18	0.00
0.249	0.25	-0.40

* % difference shall not exceed +/- 5%

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

1204 North Wheeler Street St. Plant City, Florida 33563 (813) 752-5014

INSTRUMENT CALIBRATION

	03/09/2004
	FOSTER'S PET CREMATION SERVICE
?s" f,	BLP 500/150 ANIMAL CREMATORY
	CARBON MONOXIDE
	M. q TERKE

	TECO	Yokogawa
	48	
	48-27158-228	
	2 0 0	6CM/HR

0 :11:OVOM0.7 SUPPLIER	AIR PRODUCTS	AIR PRODUCTS	AIR PRODUCTS
CYLINDER #	SG9170323	SX32489	SG9162702
CONC. (PPM)	56.9	120.7	142.4
EXPIRATION DATE	04/25/2004	01/06/2006	09/30/2006

	OBSERq" C. Nc.	7	f.) D FE
	0	0	0.00
	55.6	56.9	-0.65
	122	120.7	0.65
	142	142.4	-0.20

Regression Output:

abfifse6pf:		1.6234
rin of Y Est		1.9109
ar.40·		1.0000
No,. of Observations;'		4/2
0.agt4aofl:F:r000001::		
	1.0058	
Std err of, Coe	0.0029	

Technical Information Call
00-752-1597

AIR PRODUCTS

ISO CERTIFICATION: 9002

roducts and Chemicals, Inc. * 12722 S. Wentworth Avenue, Chicago, IL 60628

ERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS STANDARD

OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Balance Gas

- Mix

SUZANNE HAUTER

Approved By:

James Laas

Pub. No. 320-9702

Airgas

Airgas SpecialtyGases
2722 South Wentworth Avenue
Chicago, IL 90628
773.785,3000 Fax:173,185. 1928
"51.3ifq8S.COM

Certificate of Analysis: E.P.A, Protocol Gas Mixture

Certification performed in accordance with "EPA Traceability Protocol (Sept.1997)"
using assay procedures listed.

Cylinder No: SX32489
Certification Date: 0116/200
Order No: 1:57779-0a
Expiration Date: 01/12006:
Part No: E02N199E15A0T00

3

Component	Certified Concentration	Unit of Measure	Accuracy	Procedure	Analytical principle
Carbon. Monoxide	1:207'	PPM	1.%	G-1	NDIR
Nitrogen	Balance				
Nox (Reference Value Only)					

Reference Standard Information

Type	Component	Concentration	Unit	Cylinder Number
NTRM	Carbon Monoxide	244.7	PPM	SG91595,19BAL

Analytical Data

Component 1 Carbon-Monoxide-

1st Analysis Date: 12/39/2002

Zero	0.000	Cand		Ref	244.81
Zero	0.000	Cand		Ref	
Zero	0.000	Cand	120.700:	Ref	244,800

2nd Analysis Date: 01106/03.

Zero	0.00.0	Cand	120.800	Ref	244:000
Zero		Cand	120:800	Ref	1.244.800-
Zero	0.000	Cand	120.900	Ref	244700

Analyzed

Approved by: f/j -

LJ

Airgas Specialty Gases
12722 South Wanhvorth Avenue
Chicago, IL 60628
773.785,3000 Fax: 773.765.1928
mettr.aingas.com

Certificate of Analysis EPA Protocol Gas Mixture

Cylinder No:	SG9162702BAL	Reference Number:	54-ST9736-000
Cylinder Pressure:	2,013 psig	Expiration Date:	09/3012006
Certification Date:	09/30/2003	Laboratory:	ASG - Chicago - IL

Certified Concentrations

Qorriponent	ConcentratiOn	Accuracy	Analytical Principle	Proedure
Carbi[p]a Monoxide	142.4PPM		Np1R	al
Nitt.Ogeni	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed.
Analytical Methodology does not require correction for analytical interferences.
Notes:

Do not use cylinder below 150 psig.

Approved for Release

Reference Standard Information

Type	Component	Cyl. Number	Concentration
NTRM	Carbon Monoxide	SG9159474BAL	244.7 PPM

Analytical Results

1st Component CarbOn-Moncbdde

1st Analysis Date: 09/22/2003

R	244.7	S	142.3	Z	0.0000	Conc	142.4 PPM
S	142.4	Z	0.0000	R	244.7	Conc	142.3 PPM
Z	0.0000	R	244.7	S	142.4	Conc	142.4 PPM
						AVG:	142.4 PPM

2nd Analysis Date: 09/30/2003

R	2441	S	142.5	Z	0.0000	Conc	142.4 PPM
S	142.4	Z	0.0000	R	244.7	Conc	142.5 PPM
Z	0.0000	R	24-4.7	8	142.5	Conc	142.5 PPM
						AVG:	142.5 PPM

CO EMISSION TEST CALCULATIONS

COMPANY: FOSTER'S PET CREMATION SERVICE
SOURCE: B&L BLP 500/150 ANIMAL CREMATORY
TEST DATE: 03/09/2004
Data analyst: MG

Run No	Average 0 0 (PPM)	Average 02 (%)	Average CO 7% 02 (PPM)	Stmk Flpwrate (dstfitin):	Emissions mg/m3	Emissions lbstft3	Emissions lb sitt r
1	3.08	8.0	3.3	457	3.6	2.24E-007	0.006
2	2.25	10.0	2.9	482	2.6	1.64E-007	0.005
3	5.0	10.5	6.7	501	5.8	3.63E-007	0.011
Averages	3.44	9.5	4.3	480	4.0	2.50E-007	0.007

FORMULAS: CO @ 7% 02 = Actual CO x (14/(21-%02)

mg/m3 = ppm x .041573 x molecular wt.

$$lb/ft3 = \frac{mg/m3}{35.31\ ft^3/m^3 \times 1000 mg/g \times 453.59\ gill)}$$

where: Pstd = 29.92 "Hg
Tstd = 528 deg R
Molecular Weight of CO = 28

lb/hr = lb/ft3 x flowrate x 60 min/hr

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

EMISSIONS TEST CALCULATIONS

Plant: FOSTER'S PET CREMATION SERVICE
Unit: ANIMAL CREMATORY INCINERATOR
Run No: 2

Test Date: 03/09/2004
Data Input By: DW

Pbar = (Pbar at barom.) - (Elev. diff. barom. to manom., ft.) x (.1/100)

30.14 — 0 x (0.1/100) — 30.14

Pm = Pbar + Delta H / 13.6 = 30.14 + 1.041 — **30.22**

Vm(std) = (Vm) x (Y) x (Tstd,deg R) x (Pm) / (Tm,deg R) x (Pstd)

= 36.308 — 0.986 x 528 x 30.22 / 553.7 x 29.92 — **34.476**

Vw(std) = Vic x (.04715) = 144.1 x 0.04715 — 6.794

Bws = Vw(std) / (Vw(std) + Vm(std)) = 6.794 / (6.794 + 34.476) — 0.165

78 x 27.29

Bws @ saturation = 0.99

1 - Bws = 0.835 — USE BWS LOWER

Md = 0.44(%CO2) + .32(%02) + .28(%N2+%CO)

= .44 x 4.5 + .32 x 10 + 0.28

Ms = Md(1-Bws) + 18(Bws) = 29.12 — 0.835 — 18 — 0.165

27.29

Ps = Pbar + (Pp, in. H2O) / 13,6 = 30.14 — -0,01 / 13.6 — 30.14

Vs = 85.49 x (Cp) x (avg sqrt delta P) x sqrt[(Ts,--R)/(Ps)(Ms)]

85.49 x 0.84 x 0.175 x sqrt 1827.1 — 30.14

18.68

An = [(Nozzle diam, in./12)^2 x 3.14159] / 4 = 0,611 /12)^2 x 3.14159] / 4 — 0.00204

%I = (.09450) x (Ts,dep R) x (Vm(std)

(Ps) x (Vs) x (An) x (Sample Time) x (1-Bws)

0.0945 x 1827.1 x 34.476

30,14 x 18.68 x 0.0020361 — 60 x 0,835

103.6

SOUTHERN ENVIRONMENTAL SCIENCES, INC.

EMISSIONS TEST CALCULATIONS

Plant: FOSTER'S PET CREMATION SERVICE
Unit: ANIMAL CREMATORY INCINERATOR
Run No: 2

Test Date: 03/09/2004
Data Input By: CAN

MISSISSMINENtr-==inaMMINSEMUt- ItaMMISSESR

As = (Stack Diam., ft.)^2 x 3.14 / 4 = (1.5)^2 x 3.14 / 4

As.eff = As x (total No. pts.-No. neg. pts.) / (Total No. pts.) = 1.767146 x (24 - 0) / 24 = 1.77

Q 60(As,eff)(Vs) = 60 x 1.77 x 18.68 = 1,981

Qstd = (Q) x (Tstd) x (Ps) x (1-B / (Ts,degR) x (Pstd)

= 1980.505 x 528 x 30.139265 x 0.83537 / (1827.125 x 29,92)

482

Cs = (.01543) x (mn, mg) / Vm(std) = 0.01543 x ____ / 34.4759 = 0.00497

PMR = (Cs)(Qstd)(6 / 7000 = 0.0050 x 481.60559 x 60 / 7000 = 0.02

Emissions calculations in emissions test summary may differ slightly from example calculations due to rounding of some numbers in example.

Southern Environmental Sciences, Inc.
1204 North Wheeler Street ❑ Plant Clty, Florida 336662354 ❑ (813)752-5014

NOMENCLATURE USED IN STACK SAMPLING CALCULATIONS

$A_,$ = Cross-sectional area of nozzle, ft^2

A_S = Cross-sectional area of stack, ft^2

B_{ws} Water vapor in gas stream, proportion by volume

C_p = Pitot coefficient

C_s = Pollutant concentration, gr/DSCF

F_d = Ratio of gas generated to heat value of fuel, DSCF/mm BTU

ΔH = Average pressure differential across orifice, in. H_2O

%I Isokinetic variation, %

M_d = Molecular weight of dry gas

$M,$ = Total amount of pollutant collected, mg

M_s = Molecular weight of stack gas

N = Normality of barium perchlorate titrant

ΔP_{avg} = Average of the square roots of the velocity heads

P_{bar} = Barometric pressure at the sampling site, in, Hg

P = Stack gas static pressure, in. H_2O

P_{rn} – Absolute pressure at the dry gas meter, in, Hg

P_S = Absolute stack pressure, in. Hg

PIMP – Pollutant mass rate, lb/hr

P_{std} – Standard absolute pressure, 29.92 in. Hg

0 = Total sampling time, minutes

Southern Environmental Sciences, Inc.
1204 North Wheeler Street 0 Plant City, Florida
335662354 ❑ (613)752·5014

NOMENCLATURE USED IN STACK SAMPLING CALCULATIONS
(Continued)

— Stack gas flowrate, ACFM

Ci_{std} = Stack gas flowrate, DSCFM

T_{in} = Absolute average meter temperature, °R

T_s — Absolute average stack gas temperature, °R

T_{std} = Standard absolute temperature, 528 °R

V_a = Volume of sample aliquot titrated, ml

V_{lc} Liquid collected in impingers and silica gel, grams

V_{m1} = Sample volume at meter conditions, DCF

$V_{m(std)}$ = Sample volume at standard conditions, DSCF

V_s Stack gas velocity, ft/sec

V_{soln} = Total volume of solution, ml

V_t = Volume of barium perchlorate titrant used for the sample, ml

V_{tb} = Volume of barium perchlorate titrant used for the blank, ml

V_{wktai} = Volume of water vapor in sample corrected to standard conditions, SCE

= Dry gas meter calibration factor

13.6 = Specific gravity of mercury

City of Frostburg

August 25, 2023

RE: Zoning Verification for 10800 Laurel Hill Drive, Frostburg, MD

To Whom This May Concern:

Thank you for your request for zoning verification related to the property noted above by address.

The subject property is located in the T-LI Technology and Light Industrial District. This zoning district is purposed to provide for commercial and light industrial uses which are compatible with residential, commercial and institutional uses in adjacent areas of the City. This district is designed to accommodate planned business parks or substantial tracts of land suitable for business and industry with a focus on the technology sector. This district shall provide for flexibility, but requires well-planned access and design. The appropriate zoning district regulations are enclosed with this letter.

Specifically, Journey Pet Services, an existing business under new ownership, is in conformance with the T-LI zoning regulations, after the Frostburg Planning Commission approved such a use as a principal permitted use within the district. There are no open zoning code violations for this property.

I will gladly assist with any further questions or concerns.

Very truly yours,

CITY OF FROSTBURG

By: Bethany Fife
Bethany Fife
Director of Community Development
301.689.6000, Ext. 110
bfife@frostburgcity.org

Sec. 3.11. - "T-LI" Technology/Light Industrial District.

A. *Purpose.* To provide for commercial and light industrial uses which are compatible with residential, commercial and institutional uses in adjacent areas of the City. This district is designed to accommodate planned business parks or substantial tracts of land suitable for business and industry with a focus on the technology sector. This district shall provide for flexibility, but requires well-planned access and design.

B. *Principal Permitted Uses and Structures.* The following principal uses and structures are permitted in the "T-LI" district:

(1) Group homes consistent with Section 8.5.

(2) Treatment centers.

(3) Adult day care centers.

(4) Assisted living centers and nursing homes.

(5) Colleges, trade or hobby schools.

(6) Hospices and hospitals.

(7) Building material sales yard, including the sale of rock, sand, gravel, and the like, and tradesperson's equipment storage yard or headquarters.

(8) Contractor offices.

(9) Fitness centers.

(10) Medical laboratories.

(11) Wholesale business, warehouse, trucking terminals, and similar non-processing storage and distribution uses, but not including prohibited uses.

(12) Manufacturing, compounding, processing, or packaging of food and food products, and cosmetics, toiletries, and pharmaceuticals.

(13) Manufacturing, compounding or assembling of articles using the following or similar prepared materials: bone or shell, cellophane, fur, glass, leather, plastic, precious or semiprecious metals or stones, rubber, textiles or cloth products, tobacco, wood or wood products.

(14) Manufacturing of ceramic or glass products.

(15) Manufacturing or assembling from prepared materials of the following or similar items: musical instruments, clocks or watches, toys or novelties, electrical appliances, scientific or electronic devices, light sheet metal products, machine tool, office equipment.

(16) Incidental sales of products manufacturing or stored on the premises.

(17) Technological or communication based enterprises.

(18) Agriculture, limited to cropland, nurseries and greenhouses.

C. *Special Exceptions.* The following principal uses are permitted as special exceptions after approval by the Board of Zoning Appeals:

(1) Adult uses.

(2) Gambling establishments.

(3) Body art studios.

(4) Wind energy systems complying with regulations found in Section 8.8.

(5) Self-storage facilities, subject to the provisions set forth in Section 8.9.

(6) A use or structure that the applicant proves to the satisfaction of the Board of Zoning Appeals to be of the same general character as the above permitted uses and special exception uses, in accordance with the provisions of Section 1.18C(3), but not including uses that are specifically prohibited in this district.

D. *Accessory Uses and Structures.* The following accessory uses and structures shall be permitted in the "T-LI" district:

(1) Temporary buildings and structures in accordance with Section 6.6.

(2) Signs in accordance with Part 7 of this Ordinance.

(3) Accessory uses and structures that are clearly customarily accessory and directly incidental to the permitted principal uses and structures.

E. *Lot, Yard and Height Requirements:* The following minimum requirements shall apply to all uses and structures in the "T-LI" district, except as superseded by more restrictive provisions of this Ordinance.

	Commercial Use
Minimum Lot Area	6,000 sq. ft.
Minimum Front Yard	30 ft.
Minimum Rear Yard	10 ft.
Minimum Side Yard	Adjoining a C district: None, or if side yard provided a minimum of 10 ft.; Adjoining a R district: 10 ft.
Minimum Lot Width	street line: 50 ft.; front building line: 50 ft.
Maximum Lot Coverage	80%

Maximum Height	4 stories/50 feet

(Ord. No. 2018-02, §§ 2, 8, 9, 5-17-2018; Ord. No. 2019-04, § 1, 5-16-2019)