MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

December 15, 2004

NEW SOURCE REVIEW PERMIT TO INSTALL

155-96B

ISSUED TO

Myrtle Park Crematorium

LOCATED AT

9619 Northland Drive Rockford, Michigan

IN THE COUNTY OF

Kent

STATE REGISTRATION NUMBER

N5839

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

Date of receipt of all information required by rule 203: December 8, 2004			
DATE PERMIT TO INSTALL APPROVED:	SIGNATURE:		
December 15, 2004			
DATE PERMIT VOIDED:	SIGNATURE:		
DATE PERMIT REVOKED:	SIGNATURE:		

PERMIT TO INSTALL

Table of Contents

Section	Page
Alphabetical Listing of Common Abbreviations / Acronyms	2
General Conditions	3
Emission Unit Identification	5
Flexible Group Identification	5
Flexible Group Special Conditions	5
Appendices	7

Common Abbreviations / Acronyms

Common Acronyms			Pollutant/Measurement Abbreviations		
AQD Air Quality Division		Btu	British Thermal Unit		
BACT	Best Available Control Technology	°C	Degrees Celsius		
CAA	Clean Air Act	CO	Carbon Monoxide		
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot		
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter		
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit		
EPA	Environmental Protection Agency		Grains		
EU	Emission Unit	gr Hg	Mercury		
FG	Flexible Group	hr	Hour		
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide		
GC	General Condition	_	Horsepower		
HAP	Hazardous Air Pollutant	hp lb	Pound		
HVLP			Meter		
ID	High Volume Low Pressure * Identification	m			
LAER	Lowest Achievable Emission Rate	mg	Milligram Millimeter		
		mm	Million		
MACT	Maximum Achievable Control Technology	MM			
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts		
MAP	Malfunction Abatement Plan	NOx	Oxides of Nitrogen		
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter		
MSDS	Material Safety Data Sheet	PM-10	Particulate Matter less than 10 microns diameter		
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour		
NSPS	New Source Performance Standards	ppm	Parts per million		
NSR	New Source Review	ppmv	Parts per million by volume		
PS	Performance Specification	ppmw	Parts per million by weight		
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute		
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge		
PTI	Permit to Install	scf	Standard cubic feet		
RACT	Reasonable Available Control Technology	sec	Seconds		
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide		
SC	Special Condition Number	THC	Total Hydrocarbons		
SCR	Selective Catalytic Reduction	tpy	Tons per year		
SRN	State Registration Number	μg	Microgram		
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds		
VE	Visible Emissions	yr	Year		

^{*} For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

- 1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. [R336.1201(1)]
- 2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. [R336.1201(4)]
- 3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. [R336.1201(6)(b)]
- 4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. [R336.1201(8), Section 5510 of Act 451, PA 1994]
- 5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R336.1219. The written request shall be sent to the District Supervisor, Air Ouality Division, Michigan Department of Environmental Ouality. [R336.1219]
- 6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. [R336.1901]
- 7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). [R336.1912]
- 8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

- 9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
- 10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.
- 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R336.1303. [R336.1301]
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this permit to install.
- 12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R336.1370(2). [R336.1370]
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. [R336.2001]

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EU-Incinerator1	Matthews Cremation System IE43 Power-Pak II	SV-Incinerator1
	crematory, natural gas fired	
EU-Incinerator2	Matthews Cremation System IE43 Power-Pak II	SV-Incinerator2
	crematory, natural gas fired	
EU-Incinerator3	Matthews Cremation System IE43 Super Power-Pak	SV-Incinerator3
	III crematory, natural gas fired	

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FG-Incinerators	EU-Incinerator1, EU-Incinerator2, EU-Incinerator3	N/A

The following conditions apply to: FG-Incinerators

Emission Limits

	Pollutant	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1	PM	0.20 pounds per 1,000 pounds of exhaust gases, corrected to 50% excess air.	Test Protocol ¹	GC 11, GC 13	R336.1331

¹ Test Protocol shall specify averaging time.

Material Usage Limits

1.2 The permittee shall not burn any waste in EU-Incinerator1 and EU-Incinerator2 other than the following wastes:

Pathological wastes—As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding.

Type 0 waste—Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings. The mixture may contain up to 10% by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags and plastic or rubber scraps.

The permittee shall not burn any waste in EU-Incinerator3 other than the following wastes:

Pathological wastes—As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding.

[40 CFR 60.51c, R336.1331]]

Process/Operational Limits

- 1.3 The permittee shall not combust waste in FG-Incinerators unless a minimum temperature of 1600 °F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. [R336.1301, R336.1331, R336.1910]
- 1.4 The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from FG-Incinerators. A list of recommended operating and maintenance procedures is specified in Appendix A. [R336.1301, R336.1331, R336.1910]

Monitoring

1.5 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EU-Incinerator3 on a continuous basis. [R336.1301, R336.1331, R336.1901]

Recordkeeping/Reporting/Notification

- 1.6 The permittee shall keep, in a satisfactory manner, daily records of the description and weight of waste combusted in FG-Incinerators, as required by SC 1.2. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, 40 CFR 60.50c(b)]
- 1.7 The permittee shall keep, in a satisfactory manner, monthly average secondary combustion chamber temperature records during operation for EU-Incinerator1 and EU-Incinerator2, and continuous secondary combustion chamber temperature records for EU-Incinerator3. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1301, R336.1331, R336.1901]

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements
1.8a	SV-Incinerator1	20	18	R336.1901
1.8b	SV-Incinerator2	20	18	R336.1901
1.8c	SV-Incinerator3	20	18	R336.1901
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

APPENDIX A Incinerator Operation and Maintenance Guidelines

- 1. Designate a trained operator for your unit and make that person responsible for compliance with the air pollution control requirements.
- 2. Grates should be cleaned before each day's operation (more often if necessary), and the ashes disposed of properly.
- 3. Preheat the unit with the burners (not with waste) for at least 15 minutes.
- 4. Do not overload the incinerator. Stay within the given loading rates, and follow the manufacturer's instructions.
- 5. Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire causing smoke.
- 6. Burn only the type of wastes that your incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste(s).
- 7. Keep the combustion air adjusted according to the manufacturer's instructions.
- 8. Observe the stack frequently and adjust your operation as necessary to eliminate smoke and fly ash.
- 9. A copy of the manufacturer's manual and this Guideline should be posted near your incinerator.
- 10. Make quarterly inspections to check and service all of the equipment. If you do not have a qualified person available for proper inspections, a service contract with a reputable manufacturer is advisable.