# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

July 25, 2013

PERMIT TO INSTALL 53-13

ISSUED TO
Oakland County Sheriff's Office

LOCATED AT
1200 North Telegraph Road, Building 38E
Pontiac, Michigan

IN THE COUNTY OF Oakland

# STATE REGISTRATION NUMBER P0451

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 Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. 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:  July 19, 2013			
DATE PERMIT TO INSTALL APPROVED:  July 25, 2013	SIGNATURE:		
DATE PERMIT VOIDED:	SIGNATURE:		
DATE PERMIT REVOKED:	SIGNATURE:		

### **PERMIT TO INSTALL**

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### **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		
CO <sub>2</sub> e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit		
COM	Continuous Opacity Monitoring	gr	Grains		
EPA	Environmental Protection Agency	Hg	Mercury		
EU	Emission Unit	hr	Hour		
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide		
GACS	Gallon of Applied Coating Solids	hp	Horsepower		
GC	General Condition	lb	Pound		
GHGs	Greenhouse Gases	kW	Kilowatt		
HAP	Hazardous Air Pollutant	m	Meter		
HVLP	High Volume Low Pressure *	mg	Milligram		
ID	Identification	mm	Millimeter		
LAER	Lowest Achievable Emission Rate	MM	Million		
MACT	Maximum Achievable Control Technology	MW	Megawatts		
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram		
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen		
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter		
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns		
NSPS	New Source Performance Standards	pph	Pounds per hour		
NSR	New Source Review	ppm	Parts per million		
PS	Performance Specification	ppmv	Parts per million by volume		
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight		
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute		
PTI	Permit to Install	psig	Pounds per square inch gauge		
RACT	Reasonably Available Control Technology	scf	Standard cubic feet		
ROP	Renewable Operating Permit	sec	Seconds		
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide		
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons		
SRN	State Registration Number	tpy	Tons per year		
TAC	Toxic Air Contaminant	μg	Microgram		
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound		
VE	Visible Emissions	yr	Year		

<sup>\*</sup> 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. (R 336.1201(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 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(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 R 336.1210, 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. (R 336.1201(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. (R 336.1201(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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. (R 336.1219)
- 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. (R 336.1901)
- 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). (R 336.1912)
- 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 R 336.1301, 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 R 336.1303. (R 336.1301)
  - 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 R 336.1370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. (R 336.2001)

#### **SPECIAL CONDITIONS**

#### **EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUMEDIBURN30	Elastec/American Marine MediBurn 30 Fuel Type: Diesel Maximum Charge: 145 Pounds Burn Rate: 66.14 Pounds/Hour Charge Type: Confiscated Drugs and Pharmaceuticals	7-25-13	N/A

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.

#### The following conditions apply to: EUMEDIBURN30

**DESCRIPTION:** Elastec/American Marine incinerator: MediBurn 30

Fuel Type: Diesel

Maximum Charge: 145 Pounds Burn Rate: 66.14 Pounds/Hour

Charge Type: Confiscated Drugs and Pharmaceuticals

Flexible Group ID: N/A

**POLLUTION CONTROL EQUIPMENT:** Secondary combustion chamber.

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM 0.65 lb per 1,000 lbs of gas <sup>a</sup>		Test Protocol*	EUMEDIBURN30	SC V.1	R 336.1331
<sup>a</sup> Calculated to 50% excess air * Test protocol shall specify averaging time					

#### **II. MATERIAL LIMITS**

1. The permittee shall not burn any waste in EUMEDIBURN30 other than the following: (40 CFR 60.2887)

**Confiscated Drugs and Pharmaceuticals**—As excluded from the federal Standards of Performance for New Stationary Sources, 40 CFR Part 60 Subpart EEEE, contraband or prohibited goods mean illegal or prohibited goods such as illegal drugs. **This permit applies to confiscated drugs and pharmaceuticals.** 

2. The permittee shall not charge more than 145 pounds per charge in EUMEDIBURN30. (R 336.1225, R 336.1301, R 336.1331)

3. The permittee shall not burn any fuel in EUMEDIBURN30 other than diesel. (R 336.1224, R 336.1225, R 336.1702)

#### III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall not combust waste in EUMEDIBURN30 unless a minimum temperature of 1800°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. (R 336.1225, R 336.1301, R 336.1331, R 336.1910)
- 2. The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EUMEDIBURN30. A list of recommended operating and maintenance procedures is specified in Appendix A. (R 336.1225, R 336.1301, R 336.1331, R 336.1910)
- 3. The permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement plan for EUMEDIBURN30. The permittee shall not operate EUMEDIBURN30 unless the approved plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall include procedures for maintaining and operating in a satisfactory manner, EUMEDIBURN30, add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. (R 336.1910, R 336.1911)

#### IV. DESIGN/EQUIPMENT PARAMETERS

1. 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 EUMEDIBURN30 on a continuous basis. (R 336.1225, R 336.1301, R 336.1331)

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. If requested by the AQD District Supervisor, the permittee shall verify PM emission rates from EUMEDIBURN30 by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.2001, R 336.2003, R 336.2004)

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

- 1. The permittee shall monitor and record the temperature in the secondary combustion chamber of EUMEDIBURN30 on a continuous basis. (R 336.1225, R 336.1301, R 336.1331)
- 2. The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description and weight of waste combusted in EUMEDIBURN30, as required by SC II.1 and SC II.2. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205, R 336.1225, 40 CFR 60.2887)

- 3. The permittee shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EUMEDIBURN30, as required by SC IV.1. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1301, R 336.1331)
- 4. The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for EUMEDIBURN30. The record shall include the description, reason, date and time of the service, maintenance or inspection. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1301, R 336.1331, R 336.1910)

#### VII. REPORTING

N/A

#### VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVMEDIBURN30	12	17	R 336.1225, 40 CFR 52.21 (c) & (d)

#### IX. OTHER REQUIREMENTS

N/A

## APPENDIX A Incinerator Operation and Maintenance Guidelines

- 1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements.
- 2. Clean grates before each day's operation (more often if necessary), and dispose of the ashes properly.
- 3. Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle.
- 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 the 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 the operation as necessary to eliminate smoke and fly ash.
- 9. Post a copy of the manufacturer's manual and this Guideline near the incinerator.
- 10. Make quarterly inspections to check and service all of the equipment. If a qualified person is not available for proper inspections, a service contract with a reputable manufacturer is advisable.
- 11. Follow manufacturer's operation and maintenance guidelines.