# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

March 18, 2019

PERMIT TO INSTALL 43-99G

**ISSUED TO**Depor Industries

LOCATED AT 14830 23 Mile Road Shelby Township, Michigan

IN THE COUNTY OF Macomb

## STATE REGISTRATION NUMBER N6611

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:  February 28, 2019			
March 18, 2019	SIGNATURE:		
DATE PERMIT VOIDED:	SIGNATURE:		
DATE PERMIT REVOKED:	SIGNATURE:		

## **PERMIT TO INSTALL**

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#### **COMMON ACRONYMS**

AQD Air Quality Division

BACT Best Available Control Technology

CAA Clean Air Act

CAM Compliance Assurance Monitoring
CEMS Continuous Emission Monitoring System

CFR Code of Federal Regulations

COMS Continuous Opacity Monitoring System

Department/department Michigan Department of Environmental Quality

EU Emission Unit FG Flexible Group

GACS Gallons of Applied Coating Solids

GC General Condition GHGs Greenhouse Gases

HVLP High Volume Low Pressure\*

ID Identification

IRSLInitial Risk Screening LevelITSLInitial Threshold Screening LevelLAERLowest Achievable Emission RateMACTMaximum Achievable Control TechnologyMAERSMichigan Air Emissions Reporting System

MAP Malfunction Abatement Plan

MDEQ Michigan Department of Environmental Quality

MSDS Material Safety Data Sheet

NA Not Applicable

NAAQS National Ambient Air Quality Standards

NESHAP National Emission Standard for Hazardous Air Pollutants

NSPS New Source Performance Standards

NSR New Source Review PS Performance Specification

PSD Prevention of Significant Deterioration

PTE Permanent Total Enclosure

PTI Permit to Install

RACT Reasonable Available Control Technology

ROP Renewable Operating Permit

SC Special Condition

SCR Selective Catalytic Reduction
SNCR Selective Non-Catalytic Reduction
SRN State Registration Number

TBD To Be Determined

TEQ Toxicity Equivalence Quotient

USEPA/EPA United States Environmental Protection Agency

VE Visible Emissions

<sup>\*</sup>For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

#### **POLLUTANT / MEASUREMENT ABBREVIATIONS**

acfm Actual cubic feet per minute

BTU British Thermal Unit °C Degrees Celsius CO Carbon Monoxide

CO2e Carbon Dioxide Equivalent dscf Dry standard cubic foot dscm Dry standard cubic meter Personal Per

gr Grains

HAP Hazardous Air Pollutant

Hg Mercury hr Hour

HP Horsepower Hydrogen Sulfide

kW Kilowatt
lb Pound
m Meter
mg Milligram
mm Millimeter
MM Million
MW Megawatts

NMOC Non-Methane Organic Compounds

NO<sub>x</sub> Oxides of Nitrogen

ng Nanogram

PM Particulate Matter

PM10 Particulate Matter equal to or less than 10 microns in diameter PM2.5 Particulate Matter equal to or less than 2.5 microns in diameter

pph Pounds per hour ppm Parts per million

ppmv Parts per million by volume
ppmw Parts per million by weight
psia Pounds per square inch absolute

psig Pounds per square inch absolut Pounds per square inch gauge

scf Standard cubic feet

sec Seconds SO<sub>2</sub> Sulfur Dioxide

TAC Toxic Air Contaminant

Temp Temperature

THC Total Hydrocarbons tpy Tons per year Microgram

µm Micrometer or Micron

VOC Volatile Organic Compounds

yr Year

#### **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 Rule 210 (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 Rule 219 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 Rule 219 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.
- 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 Rule 301, 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 Rule 303 (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 Rule 370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. (R 336.2001)

#### **EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Flexible Group ID
EUDUAL24	Dual Model 24 dip spin coating booth and curing oven controlled by a regenerative thermal oxidizer.	FGVOCS
EURONCI	Ronci dip/spin coating line controlled by a regenerative thermal oxidizer. This emission unit utilizes four (4) shared curing ovens which are controlled by a regenerative thermal oxidizer.	FGVOCS
EURONCI2	Ronci dip/spin coating line controlled by a regenerative thermal oxidizer. This emission unit utilizes four (4) shared curing ovens which are controlled by a regenerative thermal oxidizer.	FGVOCS
EUPHOSPHATE	Phosphate Line utilizing alkaline and acids for clean-up activities.	NA
EUGRITBLAST	Three (3) grit blast cabinets.	NA
EUBOWLBLAST	Bowl blaster	NA
EUDIPSPINSTC1	Dip spin coating booth and curing oven controlled by a regenerative thermal oxidizer.	FGVOCS
EUDIPSPINSTC2	Dip spin coating booth and curing oven controlled by a regenerative thermal oxidizer.	FGVOCS

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 336.1291.

#### **FLEXIBLE GROUP SPECIAL CONDITIONS**

## **FLEXIBLE GROUP SUMMARY TABLE**

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGVOCS	Metal and plastic automotive parts coating operations controlled by a regenerative thermal oxidizer.	EUDUAL24, EURONCI, EURONCI2, EUDIPSPINSTC1, EUDIPSPINSTC2

# FGVOCS FLEXIBLE GROUP CONDITIONS

#### **DESCRIPTION**

Metal and plastic automotive parts coating operations controlled by a regenerative thermal oxidizer.

Emission Units: EUDUAL24, EURONCI, EURONCI2, EUDIPSPINSTC1, EUDIPSPINSTC2

#### POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer which controls coating lines and cure ovens.

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	35.0 tpy	12-month rolling time period as determined at the end of each calendar month		SC VI.4	R 336.1702(a)

#### II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate FGVOCS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the regenerative thermal oxidizer, has been submitted within 90 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)
- 2. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1224, R 336.1702(a))
- 3. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. (R 336.1225, R 336.1702(a))

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGVOCS unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum VOC capture efficiency of 80 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1500 °F and a minimum retention time of 0.5 seconds. (R 336.1225, R 336.1702, R 336.1910)

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature, on a continuous basis, during operation of FGVOCS. (R 336.1225, R 336.1702)

#### V. <u>TESTING/SAMPLING</u>

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

- 1. The permittee shall determine the VOC content, water content, and density of any coating as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. (R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))
- 2. Within 180 days after startup of the regenerative thermal oxidizer, and subsequently upon request from the AQD District Supervisor, the permittee shall verify capture efficiency of FGVOCS and destruction efficiency of the regenerative thermal oxidizer. This testing shall be conducted in accordance with Department requirements, 40 CFR 51 Appendix M for capture efficiency, and 40 CFR 60 Appendix A for destruction efficiency. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. The permittee must submit 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 336.1702(a), 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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1225, R 336.1702(a))
- The permittee shall continuously monitor and record the temperature in the combustion chamber of the regenerative thermal oxidizer during operation of FGVOCS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1225, R 336.1702(a))
- 3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702(a))
- 4. The permittee shall keep the following information on a monthly basis for the FGVOCS:
  - a) Gallons (with water) of each material used.
  - b) VOC content (with water) of each material as applied.
  - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1702(a))

5. The permittee shall keep, in a satisfactory manner, continuous records of the temperature in the regenerative thermal oxidizer. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)

## VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of control of FGVOCS by the regenerative thermal oxidizer. (R 336.1201(7)(a))

## VIII. STACK/VENT RESTRICTION(S)

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. SVRTO	36	57	R 336.1225, 40 CFR 52.21(c) & (d)

## IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

<sup>&</sup>lt;sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

#### **FGFACILITY CONDITIONS**

**<u>DESCRIPTION</u>**: The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

#### POLLUTION CONTROL EQUIPMENT

NA

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
Each     Individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)
Aggregate     HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)

#### II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material, as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. (R 336.1205(3))

#### VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3))
- 2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(3))

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- 3. The permittee shall keep the following information on a monthly basis for FGFACILITY:
  - a) Gallons or pounds of each HAP containing material used.
  - b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
  - c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
  - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
  - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(3))

#### VII. REPORTING

NA

#### VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

NA