# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

August 15, 2018

PERMIT TO INSTALL 116-17B

ISSUED TO
Spring Arbor Coatings

LOCATED AT 895 Garden Lane Fowlerville, Michigan

IN THE COUNTY OF Livingston

RIS PENINSULA

# STATE REGISTRATION NUMBER P0773

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:  August 8, 2018				
DATE PERMIT TO INSTALL APPROVED: August 15, 2018	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	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	СО	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2</sub> e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/	Michigan Department of Environmental	°F	Degrees Fahrenheit
department	Quality	gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H <sub>2</sub> S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental	NO <sub>x</sub>	Oxides of Nitrogen
MODO	Quality	ng	Nanogram
MSDS NA	Material Safety Data Sheet Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for		Particulate Matter equal to or less than 2.5
	Hazardous Air Pollutants	PM2.5	microns in diameter
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	Reasonable 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	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection	μg	Microgram
VE	Agency Visible Emissions	μm	Micrometer or Micron
VE	VISIDIE ETHISSIONS	VOC	Volatile Organic Compounds Year
		yr	ı caı

<sup>\*</sup>For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 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
EUCOATINGF1	Steel parts electrodeposition coating line and curing oven. A carrier lowers the steel parts into thirteen (13) sequential tanks: Tanks 1 through 3 contain an alkaline cleaner and water solution, Tank 4 is a water rinse, Tank 5 is a zinc conditioner, Tank 6 contains a zinc phosphate primer, Tanks 7 through 9 are water rinses, Tank 10 contains the E-coating, Tanks 11 through 13 are water rinses, followed by a curing oven.	March 2014 / PTI DATE	FGFACILITY
EUCOATINGF2	Steel parts electrodeposition coating line and curing oven. A carrier lowers the steel parts into twelve (12) sequential tanks: Tanks 1 and 2 contain an alkaline cleaner and water solution, Tank 3 is a water rinse, Tank 4 is a zinc conditioner, Tank 5 contains a zinc phosphate primer, Tanks 6 through 8 are water rinses, Tank 9 contains the E-coating, Tanks 10 through 12 are water rinses, followed by a curing oven.	March 2018 / PTI DATE	FGFACILITY

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: EUCOATINGF1

**<u>DESCRIPTION</u>**: Steel parts electrodeposition coating line and curing oven. A carrier lowers the steel parts into thirteen (13) sequential tanks:

Tanks 1 through 3 contain an alkaline cleaner and water solution,

Tank 4 is a water rinse.

Tank 5 is a zinc conditioner,

Tank 6 contains a zinc phosphate primer,

Tanks 7 through 9 are water rinses,

Tank 10 contains the E-coating,

Tanks 11 through 13 are water rinses,

followed by a curing oven.

Flexible Group ID: FGFACILITY

**POLLUTION CONTROL EQUIPMENT: NA** 

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUCOATINGF1	SC VI.3	R 336.1702(a)

#### II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	1.1 lb/gal (minus water) <sup>a</sup> as applied	Instantaneous	EUCOATINGF1	SC V.1	R 336.1702(a)

<sup>&</sup>lt;sup>a</sup> The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. (R 336.1602(4))

## III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. 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 336.1702(a))
- 2. 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 336.1205(3), R 336.1225, R 336.1702(a))

#### IV. DESIGN/EQUIPMENT PARAMETERS

#### 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 VOC content, water content and density of any material, as applied and as received, using federal Reference Test Method 24. Upon prior written 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 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

#### 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 336.1702(a))
- 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)
- 3. The permittee shall keep the following information on a monthly basis for EUCOATINGF1:
  - a) Gallons (with water) of each material used.
  - b) VOC content (minus water and 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 records using mass balance or an alternate method and 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))

#### VII. REPORTING

NA

#### **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. SVOVENF1	15	36	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVCLEANERF1	30	37	R 336.1225, 40 CFR 52.21(c) & (d)

#### IX. OTHER REQUIREMENTS

#### The following conditions apply to: EUCOATINGF2

**<u>DESCRIPTION</u>**: Steel parts electrodeposition coating line and curing oven. A carrier lowers the steel parts into twelve (12) sequential tanks:

Tanks 1 and 2 contain an alkaline cleaner and water solution,

Tank 3 is a water rinse.

Tank 4 is a zinc conditioner,

Tank 5 contains a zinc phosphate primer,

Tanks 6 through 8 are water rinses,

Tank 9 contains the E-coating,

Tanks 10 through 12 are water rinses,

followed by a curing oven.

Flexible Group ID: FGFACILITY

**POLLUTION CONTROL EQUIPMENT: NA** 

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUCOATINGF2	SC VI.3	R 336.1702(a)

#### II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	1.1 lb/gal (minus water) <sup>a</sup> as applied	Instantaneous	EUCOATINGF2	SC V.1	R 336.1702(a)

<sup>&</sup>lt;sup>a</sup> The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. (R 336.1602(4))

## III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. 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 336.1702(a))
- 2. 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 336.1205(3), R 336.1225, R 336.1702(a))

#### IV. DESIGN/EQUIPMENT PARAMETERS

#### 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 material, as applied and as received, using federal Reference Test Method 24. Upon prior written 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 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

#### 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 336.1702(a))
- 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)
- 3. The permittee shall keep the following information on a monthly basis for EUCOATINGF2:
  - a) Gallons (with water) of each material used.
  - b) VOC content (minus water and 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 records using mass balance or an alternate method and 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))

#### VII. REPORTING

NA

## 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. SVOVENF2	16	36	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVCLEANERF2	36	37	R 336.1225, 40 CFR 52.21(c) & (d)

#### IX. OTHER REQUIREMENTS

#### **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
	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

#### The following conditions apply Source-Wide to: FGFACILITY

### **POLLUTION CONTROL EQUIPMENT: NA**

## I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 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)
2. Aggregate HAPs	Less than 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)
3. Methyl isobutyl ketone (CAS# 108-10-1)	3.0 tpy <sup>1</sup>	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.4	R 336.1225(2)

## **II. MATERIAL LIMITS**

NA

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## IV. DESIGN/EQUIPMENT PARAMETERS

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 received and as applied, 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))
- 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 records using mass balance or an alternate method and 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))

- 4. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
  - a) Gallons of each methyl isobutyl ketone containing material used.
  - b) Where applicable, gallons of each methyl isobutyl ketone containing material reclaimed.
  - c) The methyl isobutyl ketone content, in pounds per gallon of each methyl isobutyl ketone containing material used.
  - d) Methyl isobutyl ketone emission calculations determining the monthly emission rate in tons per calendar month.
  - e) Methyl isobutyl ketone 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 records using mass balance or an alternate method and 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 336.1225(2))

#### VII. REPORTING

NA

#### VIII. STACK/VENT RESTRICTIONS

NA

#### IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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