

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

May 19, 2017

**PERMIT TO INSTALL**  
568-97D

**ISSUED TO**  
Plasti-Plant, Inc.

**LOCATED AT**  
801 Woodside Drive  
St. Louis, Michigan

**IN THE COUNTY OF**  
Gratiot

**STATE REGISTRATION NUMBER**  
N2422

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:

**April 10, 2017**

DATE PERMIT TO INSTALL APPROVED:

**May 19, 2017**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

**Table of Contents**

<b>Section</b>	<b>Page</b>
Alphabetical Listing of Common Abbreviations / Acronyms .....	2
General Conditions .....	3
Special Conditions .....	5
Emission Unit Summary Table.....	5
Special Conditions for EUCOATINGLINE.....	6
Special Conditions for EUSPINDLE.....	10
Flexible Group Summary Table .....	15
Special Conditions for FGPLASTIC .....	16
Special Conditions for FGFACILITY .....	18

**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	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2e</sub>	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfuction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

\*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.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUCOATINGLINE	Plastic and metal parts coating line consisting of three (3) paint spray booths, three (3) hand application pick-up booths, a five-stage parts washer, a gas-fired drying oven, a gas-fired cure oven and associated application equipment.	July 19, 1999 / July 25, 2007 / July 31, 2013	FGPLASTIC, FGFACILITY
EUSPINDLE	Plastic and metal parts coating line consisting of two (2) spindle spray booths and two gas-fired cure ovens.	April 1, 2016 / Date of PTI	FGPLASTIC, 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: EUCOATINGLINE**

**DESCRIPTION:** Plastic and metal parts coating line consisting of three (3) paint spray booths, three (3) hand application pick-up booths, a five-stage parts washer, a gas-fired drying oven, a gas-fired cure oven and associated application equipment.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Permanent Total Enclosure (PTE), Regenerative Thermal Oxidizer (RTO), Dry Filters

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	30.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.4, SC VI.5	R 336.1205(1)(a), R 336.1702(d)
2. Cumene (CAS No. 98-82-8)	135.1 lb/yr	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.4, SC VI.6	R 336.1225(1)
3. Ethylbenzene (CAS No. 100-41-4)	1,146.7 lb/yr	12-month rolling time period as determined at the end of each calendar month	EUCOATINGLINE	SC VI.4, SC VI.7	R 336.1225(1)
4. Xylene (CAS No. 1330-20-7)	25.8 lb/day	Calendar Day	EUCOATINGLINE	SC VI.4, SC VI.8	R 336.1225(1)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall capture all waste coatings, catalysts, thinners, and solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and solvents in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1702(a))**
2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
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))**
4. The permittee shall not coat parts that contain metal in EUCOATINGLINE unless the PTE and RTO are installed, operating, and maintained in a satisfactory manner. **(R 336.1702(d))**

5. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall maintain a minimum of 0.007 inches of water pressure differential between the PTE and the adjacent area on a continuous basis. **(R 336.1205, R 336.1225)**
6. The permittee shall not operate the PTE and RTO for EUCOATINGLINE unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1910, R 336.1911)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUCOATINGLINE unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910)**
2. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall operate the PTE and RTO in a satisfactory manner. Satisfactory operation of the capture system and RTO includes a minimum VOC capture efficiency of 100 percent (by weight), a minimum VOC destruction efficiency of 93.7 percent (by weight), maintaining a minimum temperature of 1375°F, and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1225, R 336.1910)**
3. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure differential between the PTE and the outside area for EUCOATINGLINE to verify that air is entering the PTE. **(R 336.1205, R 336.1225)**
4. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, while the RTO is in use during operation of EUCOATINGLINE. **(R 336.1205, R 336.1225)**

#### **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 coating, 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 336.1702, 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 336.1205, R 336.1702)**
2. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall monitor and keep records, in a satisfactory manner, of the pressure differential between the PTE and the outside area to verify that air is entering the PTE. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225)**
3. For when EUCOATINGLINE is using the PTE and RTO, the permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion zone of the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225)**
4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, catalyst, thinner and solvent, 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)**
5. The permittee shall keep the following information on a calendar day basis for EUCOATINGLINE:
  - a. Records of each RTO bypass including dates, times and durations at which the bypass line is open.
  - b. Records of the type of part being coated.
  - c. Gallons of each coating, catalyst, solvent and thinner used separately, during periods of RTO operation, and during periods of RTO bypass.
  - d. VOC content, in pounds per gallon, of each coating, catalyst, solvent and thinner used.
  - e. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - f. 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 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, R 336.1702)**

6. The permittee shall keep the following information on a monthly basis for EUCOATINGLINE:
  - a. Gallons of each cumene (CAS No. 98-82-8) containing material used separately, during periods of RTO operation, and during periods of RTO bypass.
  - b. Where applicable, gallons of each cumene (CAS No. 98-82-8) containing material reclaimed.
  - c. The cumene (CAS No. 98-82-8) content in pounds per gallon of each material used.
  - d. Cumene (CAS No. 98-82-8) mass emission calculations determining the monthly emission rate in pounds per calendar month.
  - e. Cumene (CAS No. 98-82-8) mass emission calculations determining the annual emission rate in pounds 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 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.<sup>1</sup> **(R 336.1225(1))**

7. The permittee shall keep the following information on a monthly basis for EUCOATINGLINE:
- Gallons of each ethylbenzene (CAS No. 100-41-4) containing material used separately, during periods of RTO operation, and during periods of RTO bypass.
  - Where applicable, gallons of each ethylbenzene (CAS No. 100-41-4) containing material reclaimed.
  - The ethylbenzene (CAS No. 100-41-4) content in pounds per gallon of each material used.
  - Ethylbenzene (CAS No. 100-41-4) mass emission calculations determining the monthly emission rate in pounds per calendar month.
  - Ethylbenzene (CAS No. 100-41-4) mass emission calculations determining the annual emission rate in pounds 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 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.<sup>1</sup> **(R 336.1225(1))**

8. The permittee shall keep the following information on a daily basis for EUCOATINGLINE:
- Gallons of each xylene (CAS No. 1330-20-7) containing material used separately, during periods of RTO operation, and during periods of RTO bypass.
  - Where applicable, gallons of each xylene (CAS No. 1330-20-7) containing material reclaimed.
  - The xylene (CAS No. 1330-20-7) content (with water) in pounds per gallon of each material used.
  - Xylene (CAS No. 1330-20-7) mass emission calculations determining the daily emission rate in pounds per calendar day.

The permittee shall keep the 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.<sup>1</sup> **(R 336.1225(1))**

**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. SVPRIMER	36	32	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVBASECOAT	36	32	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVCLEARCOAT	36	32	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVOVEN	17 x 24	27	R 336.1225, 40 CFR 52.21(c) & (d)
5. SVRTO	30 x 53	25	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**The following conditions apply to: EUSPINDLE**

**DESCRIPTION:** Plastic and metal parts coating line consisting of two (2) spindle spray booths and two gas-fired cure ovens.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Permanent Total Enclosure (PTE), Regenerative Thermal Oxidizer (RTO), Dry Filters

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. VOCs and tert-butyl acetate (CAS No. 540-88-5), combined	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUSPINDLE	SC VI.4, SC VI.5	R 336.1702(d)
2. Ethylbenzene (CAS No. 100-41-4)	287.0 lb/yr	12-month rolling time period as determined at the end of each calendar month	EUSPINDLE	SC VI.4, SC VI.6	R 336.1225(1)
3. Cumene (CAS No. 98-82-8)	71.7 lb/yr	12-month rolling time period as determined at the end of each calendar month	EUSPINDLE	SC VI.4, SC VI.6	R 336.1225(1)
4. Naphthalene (CAS No. 91-20-3)	57.4 lb/yr	12-month rolling time period as determined at the end of each calendar month	EUSPINDLE	SC VI.4, SC VI.6	R 336.1225(1)
5. Hexamethylene Diisocyanate (HDI) (CAS No. 822-06-0)	0.010 lb/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
6. N-butyl acetate (CAS No. 123-86-4)	247.9 lb/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
7. Methyl n-amyl ketone (CAS No. 110-43-0)	81.4 lbs/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
8. Diisobutyl ketone (CAS No. 108-83-8)	52.4 lbs/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
9. Isopropyl acetate (CAS No. 108-21-4)	146.6 lbs/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
10. Tert-butyl Acetate (CAS No. 540-88-5)	331.7 lbs/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
11. 1,2,4-trimethylbenzene (CAS No. 95-63-6) and 1,3,5-trimethylbenzene (CAS No. 108-67-8) combined	42.0 lb/8-hrs	8-hour block time period	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)
12. Ethylbenzene (CAS No. 100-41-4)	214.9 lb/24-hr	Calendar Day	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
13. Methyl ethyl ketone (CAS No. 78-93-3)	1,074.4 lb/24-hr	Calendar Day	EUSPINDLE	SC VI.4, SC VI.7	R 336.1225(1)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall capture all waste coatings, catalysts, thinners, and solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and solvents in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1702(a))**
2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
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))**
4. The permittee shall not coat parts that contain metal in EUSPINDLE unless the PTE and RTO are installed, operating, and maintained in a satisfactory manner. **(R 336.1702(d))**
5. For when EUSPINDLE is using the PTE and RTO, the permittee shall maintain a minimum of 0.007 inches of water pressure differential between the PTE and the adjacent area on a continuous basis. **(R 336.1225)**
6. The permittee shall not operate the PTE and RTO for EUSPINDLE unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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 336.1910, R 336.1911)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUSPINDLE unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910)**
2. For when EUSPINDLE is using the PTE and RTO during the coating of metal parts, the permittee shall operate the PTE and RTO in a satisfactory manner. Satisfactory operation of the capture system and RTO includes a minimum VOC capture efficiency of 100 percent (by weight), a minimum VOC destruction efficiency of 93.7 percent (by weight), maintaining a minimum temperature of 1375°F, and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1225, R 336.1910)**
3. For when EUSPINDLE is using the PTE, the permittee shall calibrate, maintain, and operate the PTE in a satisfactory manner, a device to monitor the pressure differential between the PTE and the outside area for EUSPINDLE to verify that air is entering the PTE. **(R 336.1225)**
4. For when EUSPINDLE is using the RTO during the coating of metal parts, the permittee shall install, calibrate, maintain and operate the RTO in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, while the RTO is in use during operation of EUSPINDLE. **(R 336.1225)**

#### **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 coating, 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 336.1702, 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)**
2. For when EUSPINDLE is using the PTE and RTO, the permittee shall monitor and keep records, in a satisfactory manner, of the pressure differential between the PTE and the outside area to verify that air is entering the PTE. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225)**
3. For when EUSPINDLE is using the PTE and RTO, the permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of the RTO on a continuous basis. 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)**
4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, catalyst, thinner, and solvent, 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)**

5. The permittee shall keep the following information on a calendar day basis for EUSPINDLE:
- Records of each RTO bypass including dates, times and durations at which the bypass line is open.
  - Records of the type of part being coated.
  - Gallons of each coating, catalyst, solvent and thinner used separately, during periods of RTO operation, and during periods of RTO bypass.
  - VOC content, in pounds per gallon, of each coating, catalyst, solvent and thinner used.
  - VOC mass emission calculations determining the monthly emission rate in tons per calendar month
  - 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 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(d))**

6. The permittee shall keep the following information on a monthly basis for EUSPINDLE:
- Gallons of each cumene (CAS No. 98-82-8), ethylbenzene (CAS No. 100-41-4), and naphthalene (CAS No. 91-20-3) containing material used, each separately, during periods of RTO operation, and during periods of RTO bypass.
  - Where applicable, gallons of each cumene (CAS No. 98-82-8), ethylbenzene (CAS No. 100-41-4), and naphthalene (CAS No. 91-20-3) containing material reclaimed, each separately.
  - The cumene (CAS No. 98-82-8), ethylbenzene (CAS No. 100-41-4), and naphthalene (CAS No. 91-20-3) content, in pounds per gallon, of each material used.
  - Cumene (CAS No. 98-82-8), ethylbenzene (CAS No. 100-41-4), and naphthalene (CAS No. 91-20-3) mass emission calculations determining the monthly emission rate in pounds per calendar month.
  - Cumene (CAS No. 98-82-8), ethylbenzene (CAS No. 100-41-4), and naphthalene (CAS No. 91-20-3) mass emission calculations determining the annual emission rate in pounds 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 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.<sup>1</sup> **(R 336.1225(1))**

7. The permittee shall keep the following information on an 8-hour basis for EUSPINDLE:
- Gallons of materials containing any of the following compounds used, each separately, during periods of RTO operation, and during periods of RTO bypass.
    - N-butyl acetate (CAS No. 123-86-4)
    - Methyl n-amyl ketone (CAS No. 110-43-0)
    - HDI (CAS No. 822-06-0)
    - Diisobutyl ketone (CAS No. 108-83-8)
    - Isopropyl acetate (CAS No. 108-21-4)
    - Tert-butyl acetate (CAS No. 540-88-5)
    - 1,2,4-trimethylbenzene (CAS No. 95-63-6) and 1,3,5-trimethylbenzene (CAS No. 108-67-8), combined.
  - Where applicable, gallons of materials containing each of the compounds listed in SC VI.7(a) reclaimed, each separately.
  - The content of each compound listed in SC 7(a), in pounds per gallon, of each material used.
  - Mass emission calculations determining the 8-hour emission rate for each compound listed in SC VI.7(a) in pounds per 8-hour block time period, each separately.

The permittee shall keep the 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.<sup>1</sup> **(R 336.1225(1))**

8. The permittee shall keep the following information on a calendar day basis for EUSPINDLE:
- Gallons of materials containing ethylbenzene (CAS No. 100-41-4) and methyl ethyl ketone (CAS No. 78-93-3) used, each separately, during periods of RTO operation, and during periods of RTO bypass.
  - Where applicable, gallons of materials containing ethylbenzene (CAS No. 100-41-4) and methyl ethyl ketone (CAS No. 78-93-3) reclaimed, each separately.
  - The content of ethylbenzene (CAS No. 100-41-4) and methyl ethyl ketone (CAS No. 78-93-3), in pounds per gallon, of each material used.
  - Mass emission calculations determining the daily emission rate for ethylbenzene (CAS No. 100-41-4) and methyl ethyl ketone (CAS No. 78-93-3) in pounds per calendar day, each separately.

The permittee shall keep the 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.<sup>1</sup> **(R 336.1225(1))**

## **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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/ Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVSPINDLEBOOTH1	9	22.85	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVSPINDLEBOOTH2	9	22.85	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVSPINDLEOVENS	9	22.85	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVRTO	30 x 53	25	R 336.1225, 40 CFR 52.21(c) & (d)

## **IX. OTHER REQUIREMENTS**

NA

### **Footnotes:**

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

**FLEXIBLE GROUP SUMMARY TABLE**

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

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGPLASTIC	All plastic parts coating lines source-wide including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(a).	EUCOATING, EUSPINDLE
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	NA

**The following conditions apply Source-Wide to: FGPLASTIC**

**DESCRIPTION:** All plastic parts coating lines source-wide including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(a).

**Emission Unit ID:** EUCOATING, EUSPINDLE

**POLLUTION CONTROL EQUIPMENT:** RTO when coating metal parts, Dry Filters

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. VOCs	Less than 30.0 tpy	12-month rolling time period as determined at the end of each calendar month	All plastic parts coating lines source-wide, including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(a).	SC VI.3	R 336.1702(d)

**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))

NA

**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 coating and reducer 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 336.1702(d))

3. The permittee shall keep the following information on a calendar month basis for all plastic parts coating lines source-wide including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(a):
  - a. Gallons or pounds of each VOC containing material used.
  - b. VOC content, in pounds per gallon or pounds per pound as applied, of each VOC containing material used.
  - c. VOC emission calculations determining the monthly emission rate in tons per calendar month.
  - d. VOC 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 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(d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

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

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

**POLLUTION CONTROL EQUIPMENT:** RTO for coating lines and dry filters on coating booths

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)

**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 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. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

The permittee shall keep the 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))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA