

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

February 22, 2018

PERMIT TO INSTALL
383-00H

ISSUED TO
Curtis Metal Finishing Company

LOCATED AT
6645 Sims Drive
Sterling Heights, Michigan

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B6455

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:

December 13, 2017

DATE PERMIT TO INSTALL APPROVED:

February 22, 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	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO _{2e}	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 ₂ 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 _x	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 ₂	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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUDIPSPIN	Seven miscellaneous metal parts dipspin coating lines (Lines 21-26, and 28) and seven associated cure ovens controlled by a common regenerative thermal oxidizer (RTO1).	Installed 6/1978 Modified 5/2001	FGFACILITY
EUDIPSPIN27	A miscellaneous metal parts dipspin coating line consisting of an enclosed dip-spin applicator, a flash-off area, and a 5.0 MMBtu/hr natural gas-fired curing oven all controlled by a regenerative thermal oxidizer (RTO2) shared with Dipspin Line No. 29.	Installed 12/2012	FGDIPSPIN, FGFACILITY
EUDIPSPIN29	A miscellaneous metal parts dipspin coating line consisting of an enclosed dip-spin applicator, a flash-off area, and a 5.0 MMBtu/hr natural gas-fired curing oven all controlled by a regenerative thermal oxidizer (RTO2) shared with Dipspin Line No. 27.	Modified 12/2012	FGDIPSPIN, FGFACILITY
EUECOAT	One electrodeposition coating line No. 42 for miscellaneous metal parts consisting of an electrodeposition tank, a five-stage water rinsing process, and a cure oven.	Installed 6/1988	FGFACILITY
EUDIPSPIN18	A miscellaneous metal parts dipspin coating line consisting of an enclosed dip-spin applicator, a flash-off area, and a 5.0 MMBtu/hr natural gas-fired curing oven all controlled by a regenerative thermal oxidizer (RTO3) shared with Dipspin Line No. 19.	Permit Issuance Date	FGDIPSINS2, FGFACILITY
EUDIPSPIN19	A miscellaneous metal parts dipspin coating line consisting of an enclosed dip-spin applicator, a flash-off area, and a 5.0 MMBtu/hr natural gas-fired curing oven all controlled by a regenerative thermal oxidizer (RTO3) shared with Dipspin Line No. 18.	Permit Issuance Date	FGDIPSINS2, FGFACILITY
EUDIPSPIN20	A miscellaneous metal parts dipspin coating line.	Installed 5/2016	FGRULE621, 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: EUDIPSPIN

DESCRIPTION: Seven miscellaneous metal parts dipspin coating lines (Lines 21-26, and 28) and seven associated cure ovens controlled by a common regenerative thermal oxidizer.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Regenerative Thermal Oxidizer (RTO1)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	51.5 tpy	13 - four-week rolling time periods, as determined at the end of each four-week period	EUDIPSPIN	SC VI.3, SC VI.4	R 336.1205(1)(a), R 336.1702(a)
2. Dibasic ester (dimethyl adipate [CAS No. 627-93-0], dimethyl glutarate [CAS No. 1119-40-0] and dimethyl succinate [CAS No. 106-65-0] combined)	3.7 tpy	13 - four-week rolling time periods, as determined at the end of each four-week period	EUDIPSPIN	SC VI.3, SC VI.4	R 336.1225, R 336.1901

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The collection and disposal of waste coatings, reducers, additives, and solvents shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1225, R 336.1702(a))**
2. The permittee shall implement and maintain a malfunction abatement plan (MAP) for EUDIPSPIN subject to review and approval by the AQD District Supervisor. The MAP shall include at a minimum, the optimum operating parameters for the add-on air pollution control device, maintenance and inspection schedules, monitoring equipment, and corrective action plans for equipment failure. **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUDIPSPIN unless the regenerative thermal oxidizer is installed and operating properly. Proper operation of the regenerative thermal oxidizer includes a minimum VOC control efficiency [combined capture (88 percent) and destruction efficiency (95 percent)] of 83.6 percent, by weight, and maintaining a minimum temperature of 1400°F and a minimum retention time of 0.5 seconds. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), R 336.1910)**

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, 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 336.1225, R 336.1702(a), 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 end of the 4-week period, for the previous 4-week period, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall monitor, in a satisfactory manner, and record the temperature in the regenerative thermal oxidizer portion of EUDIPSPIN near the combustion chamber outlet on a continuous basis in a manner and with instrumentation acceptable to the AQD District Supervisor. All temperature data shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1910)**
3. The permittee shall maintain a current listing from the manufacturer, of the chemical composition of each coating, reducer, additive, cleanup solvent, etc., including the weight percent of each component that is used in EUDIPSPIN. 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 four-week basis for EUDIPSPIN:
 - a) Hours of operation for each dip/spin line.
 - b) For each coating, reducer, additive, and cleanup/purge solvent used and/or reclaimed:
 - i. All coating identification.
 - ii. The amount used in gallons for each coating, reducer, additive, and cleanup/purge solvent.
 - iii. The VOC content in pounds per gallon (with water), as received and as applied.
 - iv. A separate listing of any coatings applied that contain dibasic esters, the gallons of each applied, and the dibasic ester (dimethyl adipate [CAS No. 627-93-0], dimethyl glutarate [CAS No. 1119-40-0] and dimethyl succinate [CAS No. 106-65-0] combined) content of each coating.
 - c) Dibasic ester (dimethyl adipate [CAS No. 627-93-0], dimethyl glutarate [CAS No. 1119-40-0] and dimethyl succinate [CAS No. 106-65-0] combined) emission rate in tons per four-week period, and 13 - four-week rolling time periods emission rate determined at the end of each four-week period in tons per year for EUDIPSPIN.
 - d) VOC emission rate in tons per four-week period, and 13 - four-week rolling time periods emission rate determined at the end of each four-week period in tons per year for EUDIPSPIN.

The permittee shall keep the records using mass balance, or a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R336.1205(1)(a), R 336.1225, 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. SV0001 (RTO1)	60	40	R 336.1225, 40 CFR 52.21(c) &(d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUECOAT

DESCRIPTION: One electrodeposition coating line No. 42 for miscellaneous metal parts consisting of an electrodeposition tank, a five-stage water rinsing process, and a cure 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*	800 lb / four-weeks	Four-week period	EUECOAT	SC VI.2, SC VI.3	R 336.1205, R 336.1702(a)
2. VOCs*	4.7 tpy	13 - four-week rolling time periods, as determined at the end of each four-week period	EUECOAT	SC VI.2, SC VI.3	R 336.1205, R 336.1702(a)

* This emission rate is based upon a maximum of 3.3 % of the VOCs in the products used being emitted to the ambient air.

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 end of the 4-week period, for the previous 4-week period, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205, R 336.1225, R 336.1702)
2. The permittee shall maintain a current listing from the manufacturer, of the chemical composition of each coating, reducer, additive, etc., including the weight percent of each component that is used in EUECOAT. 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))

3. The permittee shall keep the following information on a four-week basis for EUACOAT:
- a) Weekly for each coating, reducer, or additive used and/or reclaimed:
 - i. All coating identification.
 - ii. The amount used in gallons for each coating, reducer, or additive.
 - iii. The VOC content in pounds per gallon (with water) as applied/used.
 - b) VOC emission rate in tons per four-week period, and 13 - four-week rolling time period emission rate determined at the end of each four-week period in tons per year.

The permittee shall keep the records using mass balance, or a 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 336.1225, 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. SV0002 (Electrodeposition tank)	12	40	R 336.1225, 40 CFR 52.21(c) &(d)
2. SV0005 (Line 42 oven)	16	40	R 336.1225, 40 CFR 52.21(c) &(d)
3. SV0006 (Line 42 oven)	16	40	R 336.1225, 40 CFR 52.21(c) &(d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUDIPSPIN20

DESCRIPTION: One (1) dipspin line for coating miscellaneous metal parts.

Flexible Group ID: FGRULE621, 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	EUDIPSPIN20	SC VI.2, SC VI.3	R 336.1702(d)
2. VOCs	2000 lb/month	Calendar Month	EUDIPSPIN20	SC VI.2, SC VI.3	R 336.1702(d)

II. MATERIAL LIMITS

NA

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 336.1225, R 336.1702(d))**
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(d))**

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 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 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, 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 calendar day basis for EUDIPSPIN20:
 - a) Gallons (with water) of each coating used and/or reclaimed.
 - b) VOC content (with water) of each coating as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in pounds 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 a 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(d))**

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. SVDIP20-1 (Dipspin coating line)	24	30	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVDIP20-2 (Dipspin coating line)	24	30	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVDIP20-3 (Dipspin coating line)	24	30	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

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
FGDIPSPINS	Two (2) miscellaneous metal parts dipspin coating lines Nos. 27 and 29 controlled by a shared regenerative thermal oxidizer (RTO2).	EUDIPSPIN27, EUDIPSPIN29
FGDIPSPINS2	Two (2) dipspin coating lines for coating miscellaneous metal parts. Both lines are controlled by a shared regenerative thermal oxidizer (RTO3).	EUDIPSPIN18, EUDIPSPIN19
FGRULE621	All metal parts coating lines source-wide, including metal parts coating lines covered by other permits, which are exempted by R 336.1621(10)(b).	EUDIPSPIN20
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

The following conditions apply to: FGDIPSPINS

DESCRIPTION: Two (2) miscellaneous metal parts dipspin coating lines Nos. 27 and 29 controlled by a shared regenerative thermal oxidizer.

Emission Units: EUDIPSPIN27, EUDIPSPIN29

POLLUTION CONTROL EQUIPMENT: Regenerative Thermal Oxidizer (RTO2)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	18.0 tpy	13 - four-week rolling time periods, as determined at the end of each four-week period	FGDIPSPINS	SC VI.3, SC VI.4	R 336.1205(1)(a), R 336.1702(a)

II. MATERIAL LIMITS

NA

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 336.1225, 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, R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGDIPSPINS unless the regenerative thermal oxidizer (RTO) is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC capture and destruction efficiency of 81 percent (by weight) combined, maintaining a minimum temperature of 1400°F, and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1450°F based upon a three-hour rolling average. **(R 336.1205(1)(a), 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 RTO to monitor and record the temperature on a continuous basis, during operation of FGDIPSPINS. **(R 336.1205, R 336.1225, R 336.1702)**

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 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 336.1205, 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 end of the 4-week period, for the previous 4-week period, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**
2. The permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of the RTO on a continuous basis, during operation of FGDIPSPINS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**
3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, thinner, solvent, etc., 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 336.1224, R 336.1225, R 336.1702)**
4. The permittee shall keep the following information on a four-week basis for FGDIPSPINS:
 - a) Gallons (with water) of each coating, thinner, solvent, etc. used and/or reclaimed.
 - b) VOC content (with water) of each coating, thinner, solvent, etc. as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per four-week period.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 13 - four-week rolling time period as determined at the end of each four-week period.

The permittee shall keep the records using mass balance, or a 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(1)(a), R 336.1702)**

5. The permittee shall keep, in a satisfactory manner, operating temperature records for the RTO as required by SC IV.1. If the measured operating temperature of the RTO falls below 1400°F during operation of FGDIPSPINS, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three-hour period which includes one or more temperature readings below 1450°F. The permittee shall keep all records and calculations on file and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**

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. SV-DIPSPINSRTO (RTO2)	24 x 42	61	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: FGDIPSPINS2

DESCRIPTION: Two (2) dipspin lines for coating miscellaneous metal parts.

Emission Units: EUDIPSPIN18, EUDIPSPIN19

POLLUTION CONTROL EQUIPMENT: Regenerative Thermal Oxidizer (RTO3)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	18.0 tpy	13 - four-week rolling time periods as determined at the end of each four-week period	FGDIPSPINS2	SC VI.2, SC VI.3	R 336.1205(1)(a), R 336.1702(a)
2. Naphthalene (CAS No. 91-20-3)	742.5 lb/yr	13 - four-week rolling time periods as determined at the end of each four-week period	FGDIPSPINS2	SC VI.2, SC VI.4	R 336.1225(1),

II. MATERIAL LIMITS

NA

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 336.1225, 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, R 336.1225, R 336.1702(a))**
3. The permittee shall not operate FGDIPSPINS2 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 30 days of permit issuance, and is 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 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGDIPSPINS2 unless RTO3 is installed, maintained and operated in a satisfactory manner. Satisfactory operation of FGDIPSPINS2 includes a minimum capture efficiency of 85 percent (by weight), a minimum destruction efficiency for the regenerative thermal oxidizer of 95 percent (by weight), and maintaining a minimum temperature of 1400°F or the minimum temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1225, R 336.1702, R 336.1910)**
2. The permittee shall install, calibrate (at least once per calendar year), 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, during operation of FGDIPSPINS2. **(R 336.1205, R 336.1225, R 336.1702)**

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 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Within 180 days from the commencement of trial operation of FGDIPSPINS2, the permittee shall verify the VOC capture efficiency across FGDIPSPINS2, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 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, including any modifications to the method in the test protocol that are proposed after initial submittal. 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 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004)**
3. Within 180 days from the commencement of trial operation of FGDIPSPINS2, the permittee shall verify the VOC destruction efficiency of RTO3, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 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, including any modifications to the method in the test protocol that are proposed after initial submittal. 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 336.1205, R 336.1702, 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 end of the 4-week period, for the previous 4-week period, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, 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 four-week basis for FGDIPSPINS2:
- a) Gallons (with water) of each coating used and/or reclaimed.
 - b) VOC content (with water) of each coating as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per four-week period.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 13 - four-week rolling time period as determined at the end of each four-week period.

The permittee shall keep the records using mass balance, or a 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(1)(a), R 336.1702(a))**

4. The permittee shall keep the following information on a four-week basis for FGDIPSPINS2:
- a) Gallons (with water) of each Naphthalene-containing (CAS No. 91-20-3) coating used and/or reclaimed.
 - b) Naphthalene (CAS No. 91-20-3) content (with water) of each coating as applied.
 - c) Naphthalene (CAS No. 91-20-3) mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - d) Naphthalene (CAS No. 91-20-3) mass emission calculations determining the annual emission rate in pounds per 13 - four-week rolling time period as determined at the end of each calendar four-week period.

The permittee shall keep the records using mass balance, or a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. ¹
(R 336.1225(1))

5. The permittee shall keep, in a satisfactory manner, summary combustion chamber temperature calculations and calibration records for RTO3 as required by SC IV.1 and SC IV.2, respectively. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep all records and calculations on file and make them available to the Department upon request. **(R 336.1702, R 336.1910)**

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 trial operation of FGDIPSPINS2. **(R 336.1201(7)(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. SV-DIPSPINS2RTO (RTO3)	30.5	40	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

Footnotes:

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

The following conditions apply to All: FGRULE621

DESCRIPTION: All metal parts coating lines source-wide, including metal parts coating lines covered by other permits, which are exempted by R 336.1621(10)(b).

Emission Units: EUDIPSPIN20

POLLUTION CONTROL EQUIPMENT: NA

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	FGRULE621	SC VI.2, SC VI.3	R 336.1702(d)

II. MATERIAL LIMITS

NA

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 336.1225, R 336.1702(d))**
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(d))**

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 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 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, 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 calendar day basis for all metal parts coating lines source-wide, including metal parts coating lines covered by other permits, which are exempted by R 336.1621(10)(b):
 - a) Gallons (with water) of each coating used and/or reclaimed.
 - b) VOC content (with water) of each coating as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in pounds 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 a 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(d))**

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:

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, grandfathered equipment, and exempt equipment.

Emission Units: NA

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 9.0 tpy	13 - four-week rolling time periods as determined at the end of each four-week period	FGFACILITY	SC VI.2	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	13 – four-week rolling time periods as determined at the end of each four-week period	FGFACILITY	SC VI.2	R 336.1205(3)
3. VOC	89.9 TPY	13 – four-week rolling time periods as determined at the end of each four-week period	FGFACILITY	SC VI.3	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 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 end of the 4-week period, for the previous 4-week period, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**

2. The permittee shall keep the following information on a four-week 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 emission rate of each in tons per four-week period.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 13 – four-week rolling time periods as determined at the end of each four-week period. For each four-week period, calculations shall include the summation of emissions for the appropriate number of four-week periods prior to permit issuance plus the four-week periods following permit issuance for a total of 13 consecutive four-week periods.

The permittee shall keep the records using mass balance, or a 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))**

3. The permittee shall keep the following information on a four-week basis for FGFACILITY:
 - a) Gallons or pounds of each VOC containing material used and/or reclaimed.
 - b) Where applicable, gallons or pounds of each VOC containing material reclaimed.
 - c) VOC content, in pounds per gallon or pounds per pound, of each VOC containing material used.
 - d) VOC emission calculations determining the emission rate of each in tons per four-week period.
 - e) VOC emission calculations determining the annual emission rate of VOC in tons per 13 – four-week rolling time periods as determined at the end of each four-week period. For each four-week period, calculations shall include the summation of emissions for the appropriate number of four-week periods prior to permit issuance plus the four-week periods following permit issuance for a total of 13 consecutive four-week periods.

The permittee shall keep the records using mass balance, or a 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