

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

10/25/2019

PERMIT TO INSTALL
254-02E

ISSUED TO
TAC Manufacturing, Inc.

LOCATED AT
4111 County Farm Road

IN THE COUNTY OF
Jackson

STATE REGISTRATION NUMBER
N2908

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: October 7, 2019	
DATE PERMIT TO INSTALL APPROVED: October 25, 2019	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS	2
POLLUTANT / MEASUREMENT ABBREVIATIONS.....	3
GENERAL CONDITIONS	4
EMISSION UNIT SPECIAL CONDITIONS.....	6
EMISSION UNIT SUMMARY TABLE	6
FLEXIBLE GROUP SPECIAL CONDITIONS.....	8
FLEXIBLE GROUP SUMMARY TABLE	8
FG-COATING	9
FG-RIM.....	12
FG-RTO.....	15
FGPLASTICPARTS.....	18
FGFACILITY CONDITIONS.....	20

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-BOOTH5	Two water wash spray coating booths used to apply basecoat and clearcoat, using robotic HVLP guns to spray-coat wooden steering wheels. Emissions will also include purge and cleanup operations in the two booths.	1-1-2003	FG-COATING, FG-FACILITY
EU-MISC/OPERATIONS	The operations include solvent based filler application and staining of wooden steering wheels. Also included are gluing operations; the application of expansion material and epoxy to the steering wheels, and isopropyl alcohol wipe operations.	1-1-2003	FG-COATING, FG-FACILITY
EU-CANNON1	A dry filter spray coating booth with HVLP or equivalent spray guns. In-mold coatings are applied to the inner surface of molds and then the molds are transferred to the reaction injection molding (RIM) process booth, where plastic parts for automobiles are made by the RIM process. The in-mold coatings sprayed onto the mold get transferred to the parts being molded in the RIM process. At any given time, only one spray gun is in operation.	12-20-2017	FG-RIM, FG-FACILITY
EU-CANNON2	A dry filter spray coating booth with HVLP or equivalent spray guns. In-mold coatings are applied to the inner surface of molds and then the molds are transferred to the reaction injection molding (RIM) process booth, where plastic parts for automobiles are made by the RIM process. The in-mold coatings sprayed onto the mold get transferred to the parts being molded in the RIM process. At any given time, only one spray gun is in operation.	12-20-2017	FG-RIM, FG-FACILITY
EU-AUTOCANNON1	A dry filter robotic spray coating booth, with four (4) HVLP or equivalent spray guns. In-mold coatings are applied to the inner surface of molds and then the molds are transferred to the reaction injection molding (RIM) process booth, where plastic parts for automobiles are made by the RIM process. The in-mold coatings sprayed onto the mold get transferred to the parts being molded in the RIM process. At any given time, only one of the four spray guns is in operation.	12-20-2017	FG-RIM, FG-FACILITY

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-AUTOCANNON2	A dry filter robotic spray coating booth, with four (4) HVLP or equivalent spray guns. In-mold coatings are applied to the inner surface of molds and then the molds are transferred to the reaction injection molding (RIM) process booth, where plastic parts for automobiles are made by the RIM process. The in-mold coatings sprayed onto the mold get transferred to the parts being molded in the RIM process. At any given time, only one of the four spray guns is in operation.	12-20-2017	FG-RIM, FG-FACILITY
EU-APSLine	Plastic automotive parts automatic paint system including one robotic booth, one flash-off area, and one electric curing oven. VOC emissions from each booth, flash-off area, and an oven are captured by using a Permanent Total Enclosure (PTE) and abated via a Regenerative Thermal Oxidizer (RTO). Each paint booth is equipped with a water curtain system to control particulate matter.	5-1-2015 / 10-27-2016 / 10-2-2017	FG-RTO, FG-FACILITY
EU-APS2	Plastic automotive parts automatic paint system including two robotic booths and one electric curing oven. VOC emissions from each booth and an oven are captured by using a Permanent Total Enclosure (PTE) and abated via a Regenerative Thermal Oxidizer (RTO). Each paint booth is equipped with a water curtain system to control particulate matter.	10-2-2017 / PTI DATE	FG-RTO, FG-FACILITY

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-COATING	Wooden steering wheel coating operation including two spray coating booths as well as gluing, epoxy, cleanup, stain and filler application.	EU-BOOTH5, EU-MISC/OPERATIONS
FG-RIM	Reaction Injection Molding (RIM) consisting of in-mold coating and mold processing operations.	EU-CANNON1, EU-CANNON2, EU-AUTOCANNON1, EU-AUTOCANNON2
FG-RTO	APS Lines 1 and 2: VOC emissions from each booth, each flash-off area, and each oven are captured by using a Permanent Total Enclosure (PTE) and abated via a Regenerative Thermal Oxidizer (RTO). Each paint booth is equipped with a water curtain system to control particulate matter.	EU-APSLine. EU-APS2
FGPLASTICPARTS	All plastic parts coating lines source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

**FG-COATING
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Wooden steering wheel coating operation including two spray coating booths as well as gluing, epoxy, cleanup, stain and filler application.

Emission Unit: EU-BOOTHS, EU-MISC/OPERATIONS

POLLUTION CONTROL EQUIPMENT

Water wash systems for particulate control

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	38.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-COATING	SC VI.2	R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The hexamethylene diisocyanate (HDI – CAS No. 822-06-0) content of all materials used in FG-COATING shall not exceed 0.4 percent by weight.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste materials (including glue, expansion material, epoxy, wood filler, stain, coating and/or solvent, and any other materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the spray coating booths in EU-BOOTHS unless the respective water wash systems are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1301)**
2. The permittee shall equip and maintain EU-BOOTHS with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**

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 each glue, expansion material, epoxy, wood filler, stain, coating and/or solvent and any other materials, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1225, R 336.1702(a))**
2. The permittee shall determine the HDI content of each glue, expansion material, epoxy, wood filler, stain, coating and/or solvent and any other materials, as applied and as received, using federal Reference Test Method 311. Upon prior written approval by the AQD District Supervisor, the permittee may determine the HDI content from manufacturer's formulation data. If the Method 311 and the formulation values should differ, the permittee shall use the Method 311 results to determine compliance. If the AQD and the permittee both agree that actual field testing to verify HDI emission rates is technically feasible, then the permittee shall propose an alternative field testing method for testing of HDI in FG-COATINGS. This alternative testing method must be approved by the AQD prior to the permittee testing under it. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1225, R 336.1001, R 336.1003, R 336.1004, R 336.1005, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each glue, expansion material, epoxy, wood filler, stain, coating and/or solvent and any other materials, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. The permittee shall keep all records on file for a period of at least five years, and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
2. The permittee shall keep the following information on a monthly basis for FG-COATING:
 - a) Gallons or pounds of each glue, expansion material, epoxy, wood filler, stain, coating and/or solvent, purge and cleanup solvents, and any other materials used.
 - b) VOC content, in pounds per gallon or pounds per pound of each glue, expansion material, epoxy, wood filler, stain, coating and/or solvent, purge and cleanup solvents, and any other materials as used.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file for at least five years and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBCBOOTH	26	36	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVCCBOTH	26	36	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVGLUING	20	36	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVCCOMMONSOLVENT	24	36	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FG-RIM
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Reaction Injection Molding (RIM) consisting of in-mold coating and mold processing operations.

Emission Unit: EU-CANNON1, EU-CANNON2, EU-AUTOCANNON1, EU-AUTOCANNON2

POLLUTION CONTROL EQUIPMENT

Exhaust filters to control particulate matter

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	11.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-RSTINMOLD	SC VI.3	R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings, reducers, mold release, and cleaners and shall store them in closed containers. The permittee shall dispose of all waste coatings, reducers, mold release, and cleaners 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, mold release, and cleaners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205(3), R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-RIM unless all respective exhaust filters are installed and operating in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain FG-RIM with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**

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 coatings, reducers, mold release, as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702(a), R 336.1001, R 336.1003, R 336.1004, R 336.1040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, mold release, and cleaner, 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(a))**
3. The permittee shall keep the following information on a calendar month basis for the FG-RIM:
 - a) Gallons (with water) of each coating, reducer, mold release, and cleaner used and reclaimed.
 - b) VOC content (with water) of each coating, reducer, mold release, and cleaner as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

VII. REPORTING

1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per 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 EU-CANNON1, EU-CANNON2, EU-AUTOCANNON1 or EU-AUTOCANNON2. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-CANNON1	24	36	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-CANNON2	24	36	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-AUTOCANNON1	24	36	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-AUTOCANNON2	24	36	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FG-RTO FLEXIBLE GROUP CONDITIONS

DESCRIPTION

APS Lines 1 and 2. Each paint booth is equipped with a water curtain system to control particulate matter.

Emission Unit: EU-APSLine, EU-APS2

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE), Regenerative thermal oxidizer (RTO), and water curtain system

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	11.2 tpy	12-month rolling time period as determined at the end of each calendar month	FG-RTO	SC VI.3	R 336.1205, R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste paints, coatings, thinner, cleanup solvents, *etc.* (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall handle all VOC and / or HAP containing materials, 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 336.1224, R 336.1702(a))**
3. The permittee shall not operate FG-RTO unless a malfunction abatement plan (MAP) as described in Rule 911(2), 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 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 336.1205, R 336.1702(a), R 336.1910, R 336.1911)**

4. 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 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any booth within of FG-RTO unless water curtain particulate control is installed and operating in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain each booth within FG-RTO with high volume low pressure (HVLP) applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**
3. The permittee shall not operate FG-RTO unless the Regenerative Thermal Oxidizer (RTO) is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes, a minimum VOC destruction efficiency of 95 percent (by weight), maintaining a minimum combustion zone temperature of 1550°F, or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. **(R 336.1205, R 336.1702(a), R 336.1910)**
4. 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 FG-RTO. **(R 336.1205, R 336.1702(a), R 336.1910)**
5. The permittee shall not operate FG-RTO unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the PTE is operating at a pressure lower than all adjacent areas, so that air flows into the PTE through all natural draft openings (NDOs) to achieve a minimum VOC capture efficiency of 100 percent (by weight). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1205, R 336.1702(a), R 336.1910)**
6. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a differential pressure gauge to monitor the pressure differential between the PTE for FG-RTO and the adjacent area on a continuous basis during operation of any portion of FG-RTO. **(R 336.1205, 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, water content, and density of any coating as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702(a), R 336.1001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Upon request of the AQD District Supervisor, the permittee shall verify the VOC destruction efficiency of the RTO, 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 and 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(a), R 336.1910, 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 last 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(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (paint, coating, reducer, clean-up solvents, etc.), including the weight percent of each component used within FG-RTO. 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 calendar month basis for FG-RTO:
 - a) Gallons (with water) of each paint, coating, reducer, purge and clean-up solvent, *etc.* (material) used and reclaimed.
 - b) VOC content (with water) of each material as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

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

4. The permittee shall monitor and record, in a satisfactory manner, the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Continuous 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 on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**
5. The permittee shall monitor and record, in a satisfactory manner, the pressure differential between the PTE for FG-RTO and the adjacent area, on a continuous basis, to verify that air is entering the PTE. Continuous pressure differential data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1702)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-RTO (RTO)	34	36	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. NA

Footnotes:

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

**FGPLASTICPARTS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All plastic parts coating lines source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Emission Units: NA

POLLUTION CONTROL EQUIPMENT

Exhaust filters to control particulate matter

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	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, grandfathered plastic parts coating lines, and exempt plastic parts coating lines as required by R 336.1632(15)(a).	SC VI.2, SC VI.3	R 336.1702(d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content, and density of any coating used to coat plastic parts, 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(d))**

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 last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(d))**
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 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, grandfathered plastic parts coating lines, and exempt plastic parts coating lines as required 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 RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FG FACILITY CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.2	R 336.1205(3), R 336.1225(2)
2. Aggregate HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.2	R 336.1205(3)
3. Naphthalene (CAS No. 91-20-3)	1660.3 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.3	R 336.1225(2)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material as 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), R 336.1225(2), R 336.1702(d))**
2. The permittee shall keep the following information on a monthly basis for FG-FACILITY:
 - a) Gallons or pounds of each HAP containing material used.
 - b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

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

3. The permittee shall keep the following information on a monthly basis for FG-FACILITY:
 - a) Gallons or pounds of each naphthalene (CAS No. 91-20-3) containing material used and reclaimed.
 - b) Naphthalene (CAS No. 91-20-3) content, in pounds per gallon or pounds per pound, of each material used.
 - c) Naphthalene (CAS No. 91-20-3) emission calculations determining the monthly emission rate in pounds per calendar month and 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 alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225(2))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

Footnotes:

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