

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

MARCH 9, 2021

**PERMIT TO INSTALL
184-20**

**ISSUED TO
UNIVERSAL COATING, INC.**

**LOCATED AT
5204 ENERGY DRIVE
FLINT, MICHIGAN 48505**

**IN THE COUNTY OF
GENESEE**

**STATE REGISTRATION NUMBER
N7256**

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: December 29, 2020	
DATE PERMIT TO INSTALL APPROVED: March 9, 2021	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.....	7
FLEXIBLE GROUP SUMMARY TABLE	7
FG-RTO	8
FG-MACT MMMM.....	12
FG-MACT PPPP	18
FGFACILITY CONDITIONS.....	24

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 condition 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-CE1	Spindle Line: Two (2) automatic miscellaneous metal/plastic parts spray booths (T3 and T4) with two IR ovens connected by a chain-on-edge conveyor system and controlled by a regenerative thermal oxidizer.	May 2005	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE2	Spindle Line: Two (2) automatic miscellaneous metal/plastic parts spray booths (T1 and T2) with two IR ovens connected by a chain-on-edge (CE) conveyor system and controlled by a regenerative thermal oxidizer.	February 2007	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE3	Spindle Line: One (1) manual/automatic miscellaneous metal/plastic parts spray booth with associated electric oven connected by a chain-on-edge conveyor system and controlled by a regenerative thermal oxidizer.	May 2010	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE4	Spindle Line: Two (2) automatic miscellaneous metal/plastic parts spray booths (T5 and T6) with two IR ovens connected by a chain-on-edge conveyor system and controlled by a regenerative thermal oxidizer.	May 2014	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE5	A spindle conveyor adhesive coating line equipped with pre-heat oven and dry oven is controlled by a regenerative thermal oxidizer.	February 1, 2018	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE6	A spindle conveyor coating line equipped with a preheat oven and dry oven and is controlled by a regenerative thermal oxidizer.	March 2020	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-CE7	A spindle conveyor coating line equipped with a preheat oven and dry oven and is controlled by a PTE/regenerative thermal oxidizer.	TBD	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-RC	A roll coater (RC) line equipped with drying oven is controlled by a regenerative thermal oxidizer.	August 2008	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-TS3	A tumble spray (TS) line controlled by a regenerative thermal oxidizer.	January 2014	FG-RTO, FG-MACT MMMM, FG-MACT PPPP
EU-TS4	A tumble spray line controlled by a regenerative thermal oxidizer.	February 2016	FG-RTO, FG-MACT MMMM, FG-MACT PPPP

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-RTO	Ten (10) controlled metal/plastic parts coating lines. Associated purge and cleanup is included.	EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4
FG-MACT MMMM	Each new, reconstructed, and existing affected source described in 40 CFR 63.3881(a)(1), including the subcategories listed in 40 CFR Part 63, Subpart MMMM, 63.3881(a)(2) through (6), meeting the applicability requirements of 40 CFR 63.3881(b), which is engaged in the surface coating of miscellaneous metal parts and products. The affected source includes the collection of all the items listed in 40 CFR 63.3882(b)(1) through (4). Surface coating is defined by 40 CFR 63.3881 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating. 40 CFR Part 63, Subpart MMMM does not apply to surface coating or a coating operation that meets any of the criteria of 40 CFR 63.3881(c)(1) through (17).	EU-POWDERCOAT, EU-PHOSPHATE1, EU-PHOSPHATE2, EU-PHOSPHATE3, EU-PHOS-PROTO, EU-DS1, EU-DS2, EU-DS3, EU-DS4 (E), EU-DS5 (E), EU-DSBLAST (E), EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4, EU-TS1 (E), EU-TS2 (E), EU-H1, EU-H2, EU-H3 Note: E = Rule 201 Exempt
FG-MACT PPPP	Each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products, identified within each of the four subcategories listed in 40 CFR Part 63, Subpart PPPP, 63.4481(a)(2) to (5). Surface coating is defined by 40 CFR 63.4481 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating.	EU-POWDERCOAT, EU-PHOSPHATE1, EU-PHOSPHATE2, EU-PHOSPHATE3, EU-PHOS-PROTO, EU-DS1, EU-DS2, EU-DS3, EU-DS4 (E), EU-DS5 (E), EU-DSBLAST (E), EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4, EU-TS1 (E), EU-TS2 (E), EU-H1, EU-H2, EU-H3 Note: E = Rule 201 Exempt

**FG-RTO
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Ten (10) controlled metal/plastic parts coating lines. Associated purge and cleanup is included.

Emission Unit: EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC, acetone (CAS No. 67-64-1), and methyl acetate (CAS No. 79-20-9), combined	49.7 tpy	12-month rolling time period as determined at the end of each calendar month	FG-RTO	SC VI. 1, SC VI. 3, SC VI. 4	R 336.1205, R 336.1224, R 336.1702(a)
2. Methyl Isobutyl Ketone (CAS No. 108-10-1)	4.6 tpy	12-month rolling time period as determined at the end of each calendar month	FG-RTO	SC VI. 1, SC VI. 3, SC VI. 5	R 336.1225(1)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings, reducers, clean-up solvents, etc. (materials) and 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 dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
3. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents, and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205, R 336.1224, R 336.1702(a))**
4. 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 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 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

5. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between the PTE and the adjacent area on a 3-hour block average basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of the PTE on a 3-hour block average basis. **(R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-RTO 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 not operate FG-RTO unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of FG-RTO includes a minimum capture efficiency of 100 percent (by weight), a minimum destruction efficiency for the regenerative thermal oxidizer of 95 percent (by weight), maintaining a minimum temperature of 1550°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 336.1702, R 336.1910)**
3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a temperature monitoring device to continuously monitor and record the combustion chamber temperature of the regenerative thermal oxidizer during operation of FG-RTO. **(R 336.1205, R 336.1225, R 336.1702)**
4. The permittee shall not operate FG-RTO unless the PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following: **(R 336.1702(a), R 336.1910)**
 - a) The direction of the air flow at all times must be into the enclosure; and either
 - b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
 - c) The pressure drop across the enclosure must be at least 0.007 inch H₂O.

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 5 years of the most recent performance test, and once every five years, thereafter, the permittee shall verify the VOC capture efficiency across FG-RTO, by testing at owner's expense, in accordance with Department requirements, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. 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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. Verification of capture efficiency includes the submittal of a complete report of the test results, including calculations demonstrating the capture efficiency, to the AQD 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 5 years of the most recent performance test, and once every five years, thereafter, the permittee shall verify the VOC destruction efficiency of the regenerative thermal oxidizer for FG-RTO, by testing at owner's expense, in accordance with Department requirements, unless the permittee has submitted to the AQD District Supervisor an acceptable demonstration that the most recent acceptable test remains valid and representative. 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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. Verification of destruction efficiency includes the submittal of a complete report of the test results, including calculations demonstrating the destruction efficiency, to the AQD 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 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)**
2. The permittee shall monitor and record, in a satisfactory manner, the temperature in the regenerative thermal oxidizer on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. 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, R 336.1910)**
3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**
4. The permittee shall keep the following information on a calendar month basis for the FG-RTO:
 - a) Gallons (with water) of each coating, reducer, purge and clean-up solvents, etc. (material) used and reclaimed.
 - b) VOC content (with water), acetone content, and methyl acetate content of each material as applied.
 - c) VOC, acetone (CAS No. 67-64-1), and methyl acetate (CAS No. 79-20-9) combined mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC, acetone (CAS No. 67-64-1), and methyl acetate (CAS No. 79-20-9) combined 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 336.1205, R 336.1224, R 336.1702(a))**

5. The permittee shall keep the following information on a calendar month basis for the FG-RTO:
 - a) Gallons (with water) of each methyl isobutyl ketone (CAS No. 108-10-1) containing material used.
 - b) Where applicable, the gallons (with water) of each methyl isobutyl ketone (CAS No. 108-10-1) containing material reclaimed.
 - c) The methyl isobutyl ketone (CAS No. 108-10-1) content (with water) in pounds per gallon of each material used.
 - d) Methyl isobutyl ketone (CAS No. 108-10-1) mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e) Methyl isobutyl ketone (CAS No. 108-10-1) 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.¹ **(R 336.1225(1))**

6. The permittee shall monitor and record, in a satisfactory manner, the following:
- a) The direction of air flow into the enclosure at all times; and either
 - b) The facial velocity of air flow through all natural draft openings; or
 - c) The pressure drop at or above the facial velocity limit or pressure drop limit.

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 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification of EU-CE7 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 EU-CE7. **(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-RTO	52.8 x 30	46.3	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a secure property line around the facility at all times by the use of a fence, surveillance cameras, and/or security guards. The permittee shall keep records of how the secure property line is being maintained. The records may consist of detailed drawings indicating fence lines, placement of surveillance cameras and/or security guards, or alternate records 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.¹ **(R 336.1225(1))**

Footnotes:

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

**FG-MACT MMMM
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Each new, reconstructed, and existing affected source described in 40 CFR 63.3881(a)(1), including the subcategories listed in 40 CFR Part 63, Subpart MMMM, 63.3881(a)(2) through (6), meeting the applicability requirements of 40 CFR 63.3881(b), which is engaged in the surface coating of miscellaneous metal parts and products. The affected source includes the collection of all the items listed in 40 CFR 63.3882(b)(1) through (4). Surface coating is defined by 40 CFR 63.3881 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating. 40 CFR Part 63, Subpart MMMM does not apply to surface coating or a coating operation that meets any of the criteria of 40 CFR 63.3881(c)(1) through (17).

Emission Unit: EU-POWDERCOAT, EU-PHOSPHATE1, EU-PHOSPHATE2, EU-PHOSPHATE3, EU-PHOS-PROTO, EU-DS1, EU-DS2, EU-DS3, EU-DS4 (E), EU-DS5 (E), EU-DSBLAST (E), EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4, EU-TS1 (E), EU-TS2 (E), EU-H1, EU-H2, EU-H3.

Note: E = Rule 201 Exempt

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (Thermal Oxidizer)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Organic HAP	2.6 lbs per gal of coating solids	12-month rolling time period *	Existing – General Use Coating	SC V.1, VI.1 through VI.10	40 CFR 63.3890(b)(1)
2. Organic HAP	27.5 lbs per gal of coating solids	12-month rolling time period *	Existing – High Performance Coating	SC V.1, VI.1 through VI.10	40 CFR 63.3890(b)(2)
3. Organic HAP	37.7 lbs per gal of coating solids	12-month rolling time period *	Existing – Rubber-to-Metal Coating	SC V.1, VI.1 through VI.10	40 CFR 63.3890(b)(4)
4. Organic HAP	12.4 lbs per gal of coating solids	12-month rolling time period *	Existing – Extreme Performance Fluoropolymer Coating	SC V.1, VI.1 through VI.10	40 CFR 63.3890(b)(5)

* As determined at the end of each calendar month.

5. The permittee shall determine whether the organic HAP emission rate is equal to or less than the applicable emission limits in 40 CFR 63.3890 using at least one of the following three options, which are listed in 40 CFR 63.3891(a) through (c):
 - a) Compliant material option.
 - b) Emission rate without add-on controls option.
 - c) Emission rate with add-on controls option.

The permittee shall include all coatings, thinners, and/or other additives, and cleaning materials used when determining the emission rate. **(40 CFR 63.3891)**

6. Any coating operation(s) using the compliant material option or the emission rate without add-on controls option, shall be in compliance with the applicable emission limits in 40 CFR 63.3890 at all times. **(40 CFR 63.3900(a)(1))**
7. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the applicable emission limits at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.3900(a)(2)(i))**
8. If the surface coating operation(s) meet the applicability criteria of more than one of the subcategory emission limits specified in 40 CFR 63.3890(a) or (b), the permittee may comply separately with each subcategory emission limit, or comply using one of the alternatives in 40 CFR 63.3890(c)(1) or (2). **(40 CFR 63.3890(c))**

II. MATERIAL LIMIT(S)

For the compliant materials option, the permittee shall meet the material limits specified in the following table.

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Thinner and/or Additive	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3 & VI.5	40 CFR 63.3891(a)
2. Each Cleaning Material	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3 & VI.5	40 CFR 63.3891(a)
* Determined according to 40 CFR 63.3941(a).					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall meet the operating limits specified in Table 1 of 40 CFR Part 63, Subpart M as identified below. The permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.3967. **(40 CFR 63.3892(b) and Table 1)**

Add-on Control Device	Operating Limit
Thermal oxidizer	a) The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3967(a).
Emission capture system that is a PTE according to 40 CFR 63.3965(a).	a) The direction of the air flow at all times must be into the enclosure; and either b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c) The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of Appendix M of 40 CFR 51.

2. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall develop and implement a work practice plan, to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s). The work practice plan shall specify practices and procedures to ensure at a minimum the following elements are implemented:
 - a) All organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers. **(40 CFR 63.3893(b)(1))**
 - b) Spills of organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized. **(40 CFR 63.3893(b)(2))**
 - c) Organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes. **(40 CFR 63.3893(b)(3))**
 - d) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents. **(40 CFR 63.3893(b)(4))**

- e) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment. **(40 CFR 63.3893(b)(5))**

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the USEPA in accordance with 40 CFR 63.6(g). **(40 CFR 63.3893(c))**

3. If the affected source uses an emission capture system and add-on control device, the permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). This SSMP must address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. **(40 CFR 63.3900(c))**
4. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR 63.3892 at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.3900(a)(2)(ii))**
5. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the work practice standards in 40 CFR 63.3893 at all times. **(40 CFR 63.3900(a)(2)(iii))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall not operate FG-MACTMMMM unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. **(40 CFR 63.3892(b))**

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 mass fraction of organic HAP for each material used, the volume fraction of coating solids for each coating, and the density of each material used in accordance with 40 CFR 63.3941, 40 CFR 63.3951, and/or 40 CFR 63.3961. **(40 CFR 63.3941, 40 CFR 63.3951, 40 CFR 63.3961)**
2. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall conduct each performance test required by 40 CFR 63.3960 according to the requirements in 40 CFR 63.7(e)(1) and under the conditions in 40 CFR 63.3964(a)(1) and (2), unless a waiver of the performance test is obtained in accordance with 40 CFR 63.7(h). **(40 CFR 63.3964(a))**
3. The permittee shall conduct each performance test of an emission capture system and add-on control device to determine capture efficiency and emission destruction or removal efficiency, according to the requirements in 40 CFR 63.3965 and 40 CFR 63.3966. **(40 CFR 63.3964(b))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct an initial compliance demonstration for the initial compliance period according to the requirements in 40 CFR 63.3941, 40 CFR 63.3951, or 40 CFR 63.3961. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first of the month, then the compliance period extends through that month plus the next 12 months. **(40 CFR 63.3940, 40 CFR 63.3950, 40 CFR 63.3960)**
2. The permittee shall keep all records required by 40 CFR 63.3930 in the format and timeframes outlined in 40 CFR 63.3931. **(40 CFR 63.3942(d), 40 CFR 63.3952(d), 40 CFR 63.3963(j))**

3. The permittee shall maintain, at a minimum, the following records for each compliance period:
 - a) A copy of each notification and report that is submitted to comply with Subpart Mmmm, and the documentation supporting each notification and report. **(40 CFR 63.3930(a))**
 - b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density of each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. **(40 CFR 63.3930(b))**
 - c) A list of the coating operations on which each compliance option was used, and the beginning and ending dates and times for each compliance option used. **(40 CFR 63.3930(c)(1))**
 - d) For the compliant materials option, the calculation of the organic HAP content for each coating, using Equation 2 of 40 CFR 63.3941. **(40 CFR 63.3930(c)(2))**
 - e) For the emission rate without add-on controls option, the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or additives, and cleaning materials used each month using Equations 1, 1A through 1C and 2 of 40 CFR 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR 63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of 40 CFR 63.3951. **(40 CFR 63.3930(c)(3))**
 - f) For the emission rate with add-on controls option, the calculations specified in 40 CFR 63.3930(c)(4)(i) through (v). **(40 CFR 63.3930(c)(4))**
 - g) The name and mass or volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If the compliant material option is used for all coatings at the affected source, the permittee may maintain purchase records for each material used rather than a record of the volume used. **(40 CFR 63.3930(d))**
 - h) The mass fraction of organic HAP for each coating, thinner and/or additive, and cleaning material used during each compliance period unless the material is tracked by weight. **(40 CFR 63.3930(e))**
 - i) The volume fraction of coating solids for each coating used during each compliance period. **(40 CFR 63.3930(f))**
 - j) For either the emission rate without add-on controls or with add-on controls option, the density of for each coating, thinner and/or other additive, and cleaning material used during each compliance period. **(40 CFR 63.3930(g))**
 - k) The information specified in 40 CFR 63.3930(h)(1) through (3), if an allowance is used in Equation 1 of 40 CFR 63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to 40 CFR 63.3951(e)(4). **(40 CFR 63.3930(h))**
 - l) The date, time, and duration of each deviation. **(40 CFR 63.3930(j))**
 - m) For the emission rate with add-on controls option, records specified in 40 CFR 63.3930(k)(1) through 40 CFR 63.3930(k)(8). **(40 CFR 63.3930(k))**

4. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the operating limits specified in Table 1 of 40 CFR Part 63, Subpart Mmmm using the applicable method(s) described below, unless otherwise approved by USEPA (see SC VI.10): **(40 CFR 63.3963(c))**

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
Thermal oxidizer	a) The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3967(a).	i. Collect the combustion temperature data according to 40 CFR 63.3968(c); ii. Reduce the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
Emission capture system that is a PTE according to 40 CFR 63.3965(a)	a) The direction of the air flow at all times must be into the enclosure; and either b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. Collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.3968(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.3968(g)(2); and

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
	c) The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of Appendix M of 40 CFR Part 51.	ii. Maintain the facial velocity of air flow through all-natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit and maintain the direction of air flow into the enclosure at all times.

5. For each coating used for the compliant coating option, the permittee shall demonstrate continuous compliance with the emission limit in 40 CFR 63.3890, for each compliance period, using Equation 2 of 40 CFR 63.3941. For each thinner and cleaning material used, the permittee shall determine continuous compliance according to 40 CFR 63.3941(a). **(40 CFR 63.3942)**
6. For any coating operation or group of coating operations using the emission rate without add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit in 40 CFR 63.3890, for each compliance period, according to 40 CFR 63.3951(a) through (g). **(40 CFR 63.3952)**
7. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit in 40 CFR 63.3890, for each compliance period, according to the procedures in 40 CFR 63.3961. **(40 CFR 63.3963)**
8. During the performance test required by 40 CFR 63.3960, the permittee shall perform the applicable monitoring and recordkeeping in accordance with 40 CFR 63.3967 to establish the emission capture system and add-on control device operating limits required by 40 CFR 63.3892. **(40 CFR 63.3967)**
9. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall install, operate, and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements of 40 CFR 63.3968(a). If the capture system contains a bypass line, the permittee shall comply with the requirements of 40 CFR 63.3968(b). **(40 CFR 63.3968)**
10. The permittee must apply to the USEPA for approval of alternative monitoring under 40 CFR 63.8(f), if using an add-on control device other than those listed in Table 1 of 40 CFR Part 63, Subpart M, or to monitor an alternative parameter and comply with a different operating limit. **(40 CFR 63.3892(c))**

VII. REPORTING

1. For the compliant material option, if any coating used for any 12-month compliance period exceeds the applicable emission limit specified in 40 CFR 63.3890; or any thinner or cleaning material used contains any organic HAP, the permittee shall report this as a deviation as specified in 40 CFR 63.3910(c)(6) and 40 CFR 63.3920(a)(5). **(40 CFR 63.3942(b))**
2. For the emission rate without add-on controls, if the organic HAP emission rate for any 12-month compliance period exceeds the applicable emission limit specified in 40 CFR 63.3890, the permittee shall report this as a deviation as specified in 40 CFR 63.3910(c)(6) and 40 CFR 63.3920(a)(6). **(40 CFR 63.3952(b))**
3. For the emission rate with add-on controls option, the permittee shall report the following as deviations as specified in 40 CFR 63.3910(c)(6) and 40 CFR 63.3920(a)(7):
 - a) The organic HAP emission rate for any 12-month compliance period exceeds the applicable emission limit specified in 40 CFR 63.3890; **(40 CFR 63.3963(b))**
 - b) An operating parameter is out of the allowed range. **(40 CFR 63.3963(c)(1))**
 - c) Any control system by-pass line, for which liquid-liquid material balances are not carried out, is opened; **(40 CFR 63.3963(d))**
 - d) Deviations from work practice standards occur. **(40 CFR 63.3963(e))**

4. The Permittee shall submit the applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8(f)(4) and 63.9(b) through (e) and (h), an initial notification and a notification of compliance status as specified in 40 CFR 63.3910. **(40 CFR Part 63, Subparts A and M MMM)**
5. The permittee shall submit all semiannual compliance reports specified in 40 CFR 63.3920(a). Each semiannual compliance report shall identify which coating operation(s) used each compliance option, and if there were no deviations from the emission limitations in 40 CFR 63.3890, include a statement that the coating operations were in compliance. **(40 CFR 63.3920, 40 CFR 63.3942(c), 40 CFR 63.3952(c), 40 CFR 63.3963(f))**
6. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall submit all performance test reports for emission capture systems and add-on control devices. **(40 CFR 63.3920(b))**
7. If the emission rate with add-on controls option is used and a startup, shutdown, or malfunction occurs during the semiannual reporting period, the permittee shall submit a SSM report as specified in 40 CFR 63.3920(c). **(40 CFR 63.3920(c), 40 CFR 63.10(d))**

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:

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart M MMM for Surface Coating of Miscellaneous Metal Parts and Products by the initial compliance date. **(40 CFR Part 63, Subparts A and M MMM)**

Footnotes:

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

**FG-MACT PPPP
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products, identified within each of the four subcategories listed in 40 CFR Part 63, Subpart PPPP, 63.4481(a)(2) to (5). Surface coating is defined by 40 CFR 63.4481 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating.

Emission Unit: EU-POWDERCOAT, EU-PHOSPHATE1, EU-PHOSPHATE2, EU-PHOSPHATE3, EU-PHOS-PROTO, EU-DS1, EU-DS2, EU-DS3, EU-DS4 (E), EU-DS5 (E), EU-DSBLAST (E), EU-CE1, EU-CE2, EU-CE3, EU-CE4, EU-CE5, EU-CE6, EU-CE7, EU-RC, EU-TS3, EU-TS4, EU-TS1 (E), EU-TS2 (E), EU-H1, EU-H2, EU-H3

Note: E = Rule 201 Exempt

POLLUTION CONTROL EQUIPMENT

Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (Thermal Oxidizer)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Organic HAP	0.16 lb per lb of coating solids	12-month rolling time period as determined at the end of each calendar month.	Existing - General Use Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(b)(1)

2. The permittee shall determine whether the organic HAP emission rate is equal to or less than the applicable emission limits in 40 CFR 63.4490 using at least one of the following three options, which are listed in 40 CFR 63.4491(a) through (c):
 - a) Compliant material option.
 - b) Emission rate without add-on controls option.
 - c) Emission rate with add-on controls option.

The permittee shall include all coatings, thinners and/or other additives, and cleaning materials used when determining the emission rate. **(40 CFR 63.4491)**

3. Any coating operation(s) using the compliant material option or the emission rate without add-on controls option shall be in compliance with the applicable emission limits in 40 CFR 63.4490 at all times. **(40 CFR 63.4500(a)(1))**
4. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the applicable emission limits at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.4500(a)(2)(i))**
5. If the surface coating operation(s) meet the applicability criteria of more than one of the subcategory emission limits specified in 40 CFR 63.4490(a) or (b), the permittee may comply separately with each subcategory emission limit, or comply using one of the alternatives in 40 CFR 63.4490(c)(1) or (2). **(40 CFR 63.4490(c))**

II. MATERIAL LIMIT(S)

For the compliant materials option, the permittee shall meet the material limits specified in the following table.

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Thinner and/or Additive	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3 & VI.5	40 CFR 63.4491(a)
2. Each Cleaning Material	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3 & VI.5	40 CFR 63.4491(a)

* Determined according to 40 CFR 63.4541(a).

III. PROCESS/OPERATIONAL RESTRICTION(S)

- For any coating operation(s) using the emission rate with add-on controls option, the permittee shall meet the operating limits specified in Table 1 of 40 CFR Part 63, Subpart PPPP as identified below. The permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.4567. **(40 CFR 63.4492(b) and Table 1)**

Add-on Control Device	Operating Limit
Thermal oxidizer	a) The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.4567(a).
Emission capture system that is a PTE according to 40 CFR 63.4565(a)	a) The direction of the air flow at all times must be into the enclosure; and either b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c) The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of Appendix M OF 40 CFR 51.

- For any coating operation(s) using the emission rate with add-on controls option, the permittee shall develop and implement a work practice plan to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s). The work practice plan shall specify practices and procedures to ensure at a minimum the following elements are implemented:
 - All organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers. **(40 CFR 63.4493(b)(1))**
 - Spills of organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized. **(40 CFR 63.4493(b)(2))**
 - Organic HAP containing coatings, thinners and/or other additives, cleaning materials and waste materials must be conveyed from one location to another in closed containers or pipes. **(40 CFR 63.4493(b)(3))**
 - Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents. **(40 CFR 63.4493(b)(4))**
 - Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment. **(40 CFR 63.4493(b)(5))**

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the USEPA in accordance with 40 CFR 63.6(g). **(40 CFR 63.4493(c))**

3. If the affected source uses an emission capture system and add-on control device, the permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). This SSMP must address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. **(40 CFR 63.4500(c))**
4. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR 63.4492 at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.4500(a)(2)(ii))**
5. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the work practice standards in 40 CFR 63.4493 at all times. **(40 CFR 63.4500(a)(2)(iii))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall not operate FG-MACTPPPP unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. **(40 CFR 63.4492(b))**

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 mass fraction of organic HAP for each material used, the mass fraction of coating solids for each coating, and the density of each material used in accordance with 40 CFR 63.4541, 40 CFR 63.4551, and/or 40 CFR 63.4561. **(40 CFR 63.4541, 40 CFR 63.4551, 40 CFR 63.4561)**
2. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall conduct each performance test required by 40 CFR 63.4560 according to the requirements in 40 CFR 63.7(e)(1) and under the conditions in 40 CFR 63.4564(a)(1) and (2), unless a waiver of the performance test is obtained in accordance with 40 CFR 63.7(h). **(40 CFR 63.4564(a))**
3. The permittee shall conduct each performance test of an emission capture system and add-on control device to determine capture efficiency and emission destruction or removal efficiency, according to the requirements in 40 CFR 63.4565 and 40 CFR 63.4566. **(40 CFR 63.4564(b))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct an initial compliance demonstration for the initial compliance period according to the requirements in 40 CFR 63.4541, 40 CFR 63.4551, or 40 CFR 63.4561. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first of the month, then the compliance period extends through that month plus the next 12 months. **(40 CFR 63.4483, 40 CFR 63.4540, 40 CFR 63.4550, 40 CFR 63.4560)**
2. The permittee shall keep all records required by 40 CFR 63.4530 in the format and timeframes outlined in 40 CFR 63.4531. **(40 CFR 63.4542(d), 40 CFR 63.4552(d), 40 CFR 63.4563(j))**
3. The permittee shall maintain, at a minimum, the following records for each compliance period:
 - a) A copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart PPPP, and the documentation supporting each notification report. **(40 CFR 63.4530(a))**
 - b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density of each coating, thinner and/or other additive, and cleaning material, and the mass fraction of coating solids for each coating. **(40 CFR 63.4530(b))**
 - c) A list of the coating operations on which each compliance option was used, and the beginning and ending dates and times for each compliance option used. **(40 CFR 63.4530(c)(1))**

- d) For the compliant materials option, the calculation of the organic HAP content for each coating, using Equation 1 of 40 CFR 63.4541. **(40 CFR 63.4530(c)(2))**
 - e) For the emission rate without add-on controls option, the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or additives, and cleaning materials used each month using Equations 1, 1A through 1C and 2 of 40 CFR 63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR 63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of 40 CFR 63.4551; and the calculation of each 12-month organic HAP emission rate using Equation 3 of 40 CFR 63.4551. **(40 CFR 63.4530(c)(3))**
 - f) For the emission rate with add-on controls option, the calculations specified in 40 CFR 63.4530(c)(4)(i) through (v). **(40 CFR 63.4530(c)(4))**
 - g) The name and mass or volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If the compliant material option is used for all coatings at the affected source, the permittee may maintain purchase records for each material used rather than a record of the mass used. **(40 CFR 63.4530(d))**
 - h) The mass fraction of organic HAP for each coating, thinner and/or additive, and cleaning material used during each compliance period. **(40 CFR 63.4530(e))**
 - i) The mass fraction of coating solids for each coating used during each compliance period. **(40 CFR 63.4530(f))**
 - j) The information specified in 40 CFR 63.4530(g)(1) through (3), if an allowance is used in Equation 1 of 40 CFR 63.4551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to 40 CFR 63.4551(e)(4). **(40 CFR 63.4530(g))**
 - k) The date, time, and duration of each deviation. **(40 CFR 63.4530(h))**
 - l) For the emission rate with add-on controls option, records specified in 40 CFR 63.4530(i)(1) through (8). **(40 CFR 63.4530(i))**
4. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the operating limits specified in Table 1 to 40 CFR Part 63, Subpart PPPP using the applicable method(s) described below, unless otherwise approved by USEPA (see SC VI.10): **(40 CFR 63.4563(c))**

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
Thermal oxidizer	a) The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.4567(a).	i. Collect the combustion temperature data according to 40 CFR 63.4568(c); ii. Reduce the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
Emission capture system that is a PTE according to 40 CFR 63.4565(a)	a) The direction of the air flow at all times must be into the enclosure; and either b) The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c) The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of Appendix M of 40 CFR Part 51.	i. Collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.4568(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.4568(g)(2); and ii. Maintain the facial velocity of air flow through all-natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit and maintain the direction of air flow into the enclosure at all times.

5. For each coating used for the compliant coating option, the permittee shall demonstrate continuous compliance with the emission limit in 40 CFR 63.4490, for each compliance period, using Equation 1 of 40 CFR 63.4541. For each thinner and cleaning material used, the permittee shall determine continuous compliance according to 40 CFR 63.4541(a). **(40 CFR 63.4542)**

6. For any coating operation or group of coating operations using the emission rate without add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit in 40 CFR 63.4490, for each compliance period according to 40 CFR 63.4551(a) through (g). **(40 CFR 63.4552)**
7. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit, for each compliance period according to the procedures in 40 CFR 63.4561. **(40 CFR 63.4563)**
8. During the performance test required by 40 CFR 63.4560, the permittee shall perform the applicable monitoring and recordkeeping in accordance with 40 CFR 63.4567 to establish the emission capture system and add-on control device operating limits required by 40 CFR 63.4492. **(40 CFR 63.4567)**
9. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall install, operate, and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements of 40 CFR 63.4568(a). If the capture system contains a bypass line, the permittee shall comply with the requirements of 40 CFR 63.4568(b). **(40 CFR 63.4568)**
10. The permittee must apply to the USEPA for approval of alternative monitoring under 40 CFR 63.8(f), if using an add-on control device other than those listed in Table 1 of 40 CFR Part 63, Subpart PPPP, or to monitor an alternative parameter and comply with a different operating limit. **(40 CFR 63.4492(c))**

VII. REPORTING

1. For the compliant material option, the use of any coating, thinner or cleaning material which does not meet the criteria specified in 40 CFR 63.4542(a) is a deviation that must be reported as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(5). **(40 CFR 63.4542(b))**
2. For the emission rate without add-on controls, if the organic HAP emission rate for any compliance period exceeds the applicable emission limit specified in 40 CFR 63.4490, the permittee shall report this as a deviation as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(6). **(40 CFR 63.4552(b))**
3. For the emission rate with add-on controls option, the permittee shall report the following as deviations as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(7):
 - a) The organic HAP emission rate for any compliance period exceeds the applicable emission limit specified in 40 CFR 63.4490; **(40 CFR 63.4563(b))**
 - b) An operating parameter is out of the allowed range; **(40 CFR 63.4563(c)(1))**
 - c) Any control system by-pass line, for which liquid-liquid material balances are not carried out, is opened; **(40 CFR 63.4563(d))**
 - d) Deviations from work practice standards occur. **(40 CFR 63.4563(e))**
4. The Permittee shall submit the applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8(f)(4) and 63.9(b) through (e) and (h), an initial notification and a notification of compliance status as specified in 40 CFR 63.4510. **(40 CFR Part 63, Subparts A and PPPP)**
5. The permittee shall submit all semiannual compliance reports as required by 40 CFR 63.4520. Each semi-annual compliance report shall identify which coating operation(s) used each compliance option, and if there were no deviations from the emission limitations in 40 CFR 63.4490, include a statement that the coating operations were in compliance. **(40 CFR 63.4520, 40 CFR 63.4542(c), 40 CFR 63.4552(c), 40 CFR 63.4563(f))**
6. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall submit all performance test reports for emission capture systems and add-on control devices. **(40 CFR 63.4520(b))**
7. If the emission rate with add-on controls option is used and a startup, shutdown, or malfunction occurs during the semiannual reporting period, the permittee shall submit a SSM report as specified in 40 CFR 63.4520(c). **(40 CFR 63.4520(c), 40 CFR 63.10(d))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart PPPP for Surface Coating of Plastic Parts and Products by the initial compliance date. **(40 CFR Part 63, Subparts A and PPPP)**

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

Regenerative Thermal Oxidizer (FG-RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Ethylbenzene (CAS No. 100-41-4)	Less than 8.9 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FG FACILITY	SC VI.1, SC VI.2, 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))

NA

VI. MONITORING/RECORDKEEPING

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

- 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 336.1225, R 336.1702)
- The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)
- The permittee shall keep the following information on a calendar month basis for the FG-FACILITY:
 - Gallons (with water) of each ethylbenzene (CAS No. 100-41-4) containing material used.
 - Where applicable, the gallons (with water) of each ethylbenzene (CAS No. 100-41-4) containing material reclaimed.
 - The ethylbenzene (CAS No. 100-41-4) content (with water) in pounds per gallon of each material used.

- d) Ethylbenzene (CAS No. 100-41-4) mass emission calculations determining the monthly emission rate in tons per calendar month.
- e) Ethylbenzene (CAS No. 100-41-4) 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.¹ **(R 336.1225(2))**

VII. REPORTING

1. All records required by SC VI.3 of FG-PHOSPHATELINES; SC VI.3 of FG-DIPSPINS; SC VI.3 of FG-H1/H2/H3; and SC VI.4 and SC VI.5, of FG-RTO shall be submitted semi-annually. The records shall be submitted to the AQD District Supervisor in an acceptable format by September 15, for the semi-annual reporting period January 1 to June 30, and by March 15, for the semi-annual reporting period July 1 to December 31. **(R 336.1225, R 336.1702)**
2. The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(2). The permittee shall submit the notification to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal.¹ **(R 336.1225(4))**

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).