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

August 13, 2024

PERMIT TO INSTALL
192-03I

ISSUED TO
General Formulations, Inc.

LOCATED AT
309 South Union Street
Sparta, Michigan 49345

IN THE COUNTY OF
Kent

STATE REGISTRATION NUMBER
M3554

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: **May 21, 2024**	
DATE PERMIT TO INSTALL APPROVED: **August 13, 2024**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

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_2e	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_2S	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-CoaterUV	A 61-inch wide, ultraviolet (UV) coating and curing station on a static cling laminator. Coating is applied via method of reverse gravure with an enclosed doctor blade.	12-20-2012 /	NA
EU-CoaterD	A 65-inch wide, roll to roll laminator with a knife-over-roll and two gravure coating stations and a three-zone natural gas-fired oven. EU-CoaterD is capable of using both water-based and solvent-based coatings. When solvent-based coatings are in use, EU-CoaterD is controlled by a Permanent Total Enclosure (PTE) and three regenerative thermal oxidizers (RTOs). When water-based coatings are in use, emissions from EU-CoaterD may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRD.	11-01-1985 / 09-05-2019 / 10-06-2023 / TBD	FG-Coat&Mix, FG-SolventBased, FG-TACs
EU-CoaterE	A 60-inch wide, roll to roll laminator with gravure and wire rod coating stations, and a single zone natural gas-fired oven. EU-CoaterE is capable of using water-based coatings. Emissions from EU-CoaterE may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRE	12-01-1998 / TBD	FG-Coat&Mix
EU-CoaterF	A 64-inch wide, roll to roll laminator with gravure and wire rod coating stations, and a natural gas-fired oven. EU-CoaterF is capable of using water-based coatings. Emissions from EU-CoaterF may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRF	11-01-2004 / 02-08-2016 / TBD	FG-Coat&Mix

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-CoaterG	A 64-inch wide, roll to roll laminator with comma coating stations, reverse gravure or wire rod coating stations, a natural gas-fired oven and a reverse gravure topcoat station with a natural gas-fired oven. EU-CoaterG is capable of using both water-based and solvent-based coatings. When solvent-based coatings are in use, EU-CoaterG is controlled by a PTE and three RTOs. When water-based coatings are in use, emissions from EU-CoaterG may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRG.	09-21-2010/ 04-08-2014 / 09-05-2019 / 10-06-2023 / TBD	FG-Coat&Mix, FG-SolventBased, FG-TACs
EU-Washroom	One automated washing system with a movable top and spray nozzle used to remove residue from storage vessels (tubs, totes, drums, etc.). The washer includes two storage tanks for clean and dirty solvent, with drums of fresh solvent for recirculation. Solvent is recovered as needed from the tanks. As necessary, vessels or parts within wash tanks will be cleaned with manual rag wipedown. Emissions from EU-Washroom are controlled by a PTE and three RTOs. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3.	01-01-1978 / 09-05-2019 / 10-06-2023 / TBD	FG-Coat&Mix, FG-SolventBased
EU-CoaterH	A 64-inch wide comma bar coating station with a natural gas-fired oven. EU-CoaterH is capable of using both water-based and solvent-based coatings. When solvent-based coatings are in use, EU-CoaterH is controlled by a PTE and three RTOs. When water-based coatings are in use, emissions from EU-CoaterH may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRH	01-08-2020 / 10-06-2023 / TBD	FG-Coat&Mix, FG-SolventBased, FG-TACs

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-CoaterC	A 64-inch wide comma bar coating station with the capability to run in a knife-over-roll configuration, and a natural gas-fired oven, all controlled by a PTE and three RTOs. Emission unit is also equipped with a filtration system to control particulate matter. EU-CoaterC is capable of using solvent-based coatings. EU-CoaterC is controlled by a PTE and three RTOs. . Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3.	12-23-2020 / 10-06-2023 / TBD	FG-Coat&Mix, FG-TACs
EU-NewMixroom	EU-NewMixroom is a batch process where coatings and adhesives are produced for internal use and external sales. Emissions from EU-NewMixroom are captured by a PTE and controlled by three RTOs. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3.	09-14-2022 / 10-06-2023 / TBD	FG-Coat&Mix, FG-SolventBased, FG-TACs
EU-CoaterI	A 73-inch wide direct and reverse gravure coating system and a natural gas-fired oven. EU-CoaterI is capable of using both water-based and solvent-based coatings. EU-CoaterI is capable of using water-based coatings. Emissions from EU-CoaterI may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air. Stack ID: SV-RTO1, SV-RTO2, and SV-RTO3 or SV-CTRI.	TBD	FG-Coat&Mix

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.

EU-CoaterUV
EMISSION UNIT CONDITIONS

DESCRIPTION

A 61-inch wide, ultraviolet (UV) coating and curing station on a static cling laminator. Coating is applied via method of reverse gravure with an enclosed doctor blade.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	4.6 tpy	12-month rolling time period as determined at the end of each calendar month	EU-CoaterUV	SC VI.1 – SC VI.3	R 336.1205, R 336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	0.16 lb/gal (minus water)[a] as applied	Instantaneous	EU-CoaterUV	SC V.1	R 336.1702(a)
2. VOC Coatings	57,500 gal/yr	12-month rolling time period as determined at the end of each calendar month	EU-CoaterUV	SC VI.3	R 336.1205

[a] The phrase “minus water” shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings and shall store them in closed containers. The permittee shall dispose of all waste coatings in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1702(a))**

2. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205, R 336.1225, R 336.1702(a))**

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, 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(3), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 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 coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**

3. The permittee shall keep the following information on a monthly basis for EU-CoaterUV:
   a) Gallons (with water) of each coating used and reclaimed.
   b) VOC content (minus water and with water) of each coating 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 and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT 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-CoaterUV	24	60	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).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

EU-CoaterE
EMISSION UNIT CONDITIONS

DESCRIPTION

A 60-inch wide, roll to roll laminator with gravure and wire rod coating stations, and a single zone natural gas-fired oven.

EU-CoaterE is capable of using water-based coatings. Emissions from EU CoaterE may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air.

Flexible Group ID: FG-Coat&Mix

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	22.9 tpy[3]	12-month rolling time period as determined at the end of each calendar month	EU-CoaterE	SC VI.1 - SC VI.3	R 336.1205, R 336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	0.8 lb/gal (minus water)[a, 3] as applied	Instantaneous	EU-CoaterE	SC V.1	R 336.1702(a)
[a] The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings and shall store them in closed containers. The permittee shall dispose of all waste coatings in an acceptable manner in compliance with all applicable state rules and federal regulations. [3] **(R 336.1370, R 336.1702(a))**

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, 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.[3] **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[3] **(R 336.1205, R 336.1225, R 336.1702)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1225, R 336.1702)**

3. The permittee shall keep the following information on a monthly basis for EU-CoaterE:
   a) Gallons (with water) of each coating used and reclaimed.
   b) VOC content (minus water and with water) of each coating 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 and make them available to the Department upon request.[3] **(R 336.1205, 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. SV-CTRE[3]	20	65	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. All special conditions under this emission unit or flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

EU-CoaterF
EMISSION UNIT CONDITIONS

DESCRIPTION

A 64-inch wide, roll to roll laminator with gravure and wire rod coating stations, and a natural gas-fired oven.

EU-CoaterF is capable of using water-based coatings. Emissions from EU CoaterF may be routed to the RTOs or bypass the RTOs and be emitted uncontrolled to the ambient air.

Flexible Group ID: FG-Coat&Mix

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	40.0 tpy[3]	12-month rolling time period as determined at the end of each calendar month	EU-CoaterF	SC VI.1 - SC VI.3	R 336.1702(a)
2.Hydrotreated Distillate (CAS No. 64742-46-7)	20.0 lb/8-hrs[3]	Calendar day	EU-CoaterF	SC VI.4	R 336.1225(1)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	0.8 lb/gal (minus water)[a, 3] as applied	Instantaneous	EU-CoaterF	SC V.1	R 336.1702(a)
[a] The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings and shall store them in closed containers. The permittee shall dispose of all waste coatings in an acceptable manner in compliance with all applicable state rules and federal regulations.[3] **(R 336.1370, R 336.1702(a))**

2. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.[3] **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-CoaterF with gravure and wire rod coating applicators.[3] **(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 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.[3] **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[3] **(R 336.1225, R 336.1702)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1225, R 336.1702)**

3. The permittee shall keep the following information on a monthly basis for EU-CoaterF:
   a) Gallons (with water) of each coating used and reclaimed.
   b) VOC content (minus water and with water) of each coating 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 and make them available to the Department upon request.[3] **(R 336.1702(a))**

4. The permittee shall keep the following information on a daily basis for EU-CoaterF:
   a) Gallons (with water) of each hydrotreated distillate (CAS No. 64742-46-7) containing material used.
   b) Where applicable, gallons (with water) of each hydrotreated distillate (CAS No. 64742-46-7) containing material reclaimed.
   c) The hydrotreated distillate (CAS No. 64742-46-7) content (with water) in pounds per gallon of each material used.
   d) Hydrotreated distillate (CAS No. 64742-46-7) mass emission calculations determining the emission rate in pounds per 8-hr time period.

   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, 3] **(R 336.1225(1))**

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-CTRF[3]	40	65	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. All special conditions under this emission unit or flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

EU-CoaterC
EMISSION UNIT CONDITIONS

DESCRIPTION

A 64-inch wide comma bar coating station with the capability to run in a knife-over-roll configuration, and a natural gas-fired oven, all controlled by a PTE and three RTOs. Emission unit is also equipped with a filtration system to control particulate matter.

EU-CoaterC is capable of using solvent-based coatings. EU-CoaterC is controlled by a PTE and three RTOs.

Flexible Group: FG-Coat&Mix

POLLUTION CONTROL EQUIPMENT

VOC emissions from EU-CoaterC are controlled by a Permanent Total Enclosure (PTE) and an existing regenerative thermal oxidizer (existing RTO). Emission unit is equipped with a filtration system to control particulate matter.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	89.0 tpy[3]	12-month rolling time period as determined at the end of each calendar month	EU-CoaterC	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 coatings and purge solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and purge solvents in an acceptable manner in compliance with all applicable state rules and federal regulations.[3] **(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.[3] **(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.[3] **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

4. The permittee shall implement and maintain a malfunction abatement plan (MAP) as described in Rule 911(2). 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.
d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers III.1 and III.2.

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 60 days if new equipment is installed or upon request from the AQD 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.[3] **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

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 continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of the PTE on a continuous basis.[3] **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-CoaterC unless the existing RTO and the associated PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the existing RTO includes a minimum VOC destruction efficiency for the existing RTO of 95 percent (by weight), maintaining a three-hour rolling average combustion zone temperature of at least 1400°F or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. Satisfactory operation of the PTE includes a minimum capture efficiency for the PTE of EU-CoaterC of 100 percent (by weight).[3] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the existing RTO to monitor and record the temperature on a continuous basis, while the existing RTO is in use during operation of EU-CoaterC.[3] **(R 336.1205, R 336.1702, R 336.1910)**

4. The permittee shall not operate EU-CoaterC unless the associated PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following:[3]
   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 inches H_2O.
   (R 336.1702(a), R 336.1910)

5. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to measure the average facial velocity of air or a device to monitor the pressure differential between the PTE and the adjacent area on a continuous basis during operation of EU-CoaterC.[3] **(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.[3] **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

2. Within 180 days after EU-CoaterC being the only unit exhausted to SV-RTO1 (i.e., EU-NewMixroom routed to SV-RTO2), the permittee shall verify the VOC destruction efficiency of the existing 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. 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, 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.[3] **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.583(d), 40 CFR 60.584(b)(2))**

3. Within 180 days after EU-CoaterC being the only unit exhausted to SV-RTO1 (i.e., EU-Washroom routed to SV-RTO2), the permittee shall verify that the associated enclosure meets the definition of PTE or verify capture efficiency of the enclosure, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol 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, 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.[3] **(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.[3] **(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 coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a calendar month basis for the EU-CoaterC:

   a) Identity and gallons (with water) of each coating used and reclaimed.
   b) The VOC content (with water) of each coating as applied.
   c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month for EU-CoaterC.
   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 for EU-CoaterC.

   The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor and make them available to the Department upon request.[3] **(R 336.1205, R 336.1702(a))**

4. The permittee shall monitor and record, in a satisfactory manner, the combustion zone temperature in the existing 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 may demonstrate compliance based upon a three-hour rolling average combustion zone temperature. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall monitor and record, in a satisfactory manner, the air flow or pressure differential between the PTE of EU-CoaterC and the adjacent area, on a continuous basis, to verify that air is entering the PTE. Continuous air flow or pressure differential data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee may demonstrate compliance based upon a three-hour average air flow or pressure differential. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1205, 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. SV-RTO1[3] (Formerly "Existing RTO")	32 x 56	65	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall meet all applicable provisions of the New Source Performance Standards (NSPS) for EU-CoaterC as specified in 40 CFR Part 60 Subpart FFF for flexible vinyl and urethane coating and printing.[3] **(40 CFR 60, Subpart FFF)**

2. All special conditions under this emission unit or flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

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-Coat&Mix	Roll Laminators (coaters), natural gas fired ovens, a mix room, and a washroom. Coaters C, D, E, F, G, H and I use water and solvent-based coatings. EU-NewMixroom is a batch process where coatings and adhesives are produced for internal use and external sales. EU-Washroom is used for cleaning tubs and totes. VOC emissions during use of solvent based material are controlled by PTE and three RTOs, while VOC emissions during the use of water based materials may be exhausted via bypass stack(s) or to the three RTOs. Each emission unit is equipped with a filtration system to control particulate matter.	EU-NewMixroom, EU-CoaterC, EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH, EU-Washroom, EU-CoaterI
FG-SolventBased	Roll Laminators (coaters), natural gas fired ovens, new mix room, and a mix room. Coaters D, G, and H use water and/or solvent-based coatings. EU-NewMixroom is a batch process where coatings and adhesives are produced for internal use and external sales. EU-Washroom is used for cleaning tubs and totes. VOC emissions during use of solvent based material are controlled by PTE and new RTO otherwise exhausted via bypass stack(s). Each emission unit is equipped with a filtration system to control particulate matter. Special conditions under this flexible group shall become void 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.	EU-NewMixroom, EU-CoaterD, EU-CoaterG, EU-CoaterH, EU-Washroom
FG-TACs	Toxic air contaminants (TAC) emitted from five (5) emission units. Special conditions under this flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box.	EU-CoaterC, EU-NewMixroom EU-CoaterD, EU-CoaterG, EU-CoaterH

FG-Coat&Mix
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Roll Laminators (coaters), natural gas fired ovens, a mix room, and a washroom. Coaters C, D, E, F, G, H and I use water and solvent-based coatings. EU NewMixroom is a batch process where coatings and adhesives are produced for internal use and external sales. EU-Washroom is used for cleaning tubs and totes. VOC emissions during use of solvent based material are controlled by PTE and three RTOs, while VOC emissions during the use of water-based materials are exhausted via bypass stack(s) or to the three RTOs. Each emission unit is equipped with a filtration system to control particulate matter.

Emission Unit: EU-NewMixroom, EU-CoaterC, EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH, EU-Washroom, EU-CoaterI

POLLUTION CONTROL EQUIPMENT

- Particulate filtration system: EU-CoaterC
- PTE: EU-CoaterC, EU-CoaterD, EU-CoaterG, EU-CoaterH, (when all aforementioned EUs are using solvent-based coatings) EU-NewMixroom, and EU-Washroom
- RTO system comprises of three RTOs (RTO1, RTO2, and RTO3) and a mix box that routes VOC emissions to all three RTOs. The system controls VOC emissions from the following emission units: EU-CoaterC, EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH, EU-CoaterI, EU-NewMixroom, and EU-Washroom

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	52.7 tpy[4]	12-month rolling time period as determined at the end of each calendar month	FG-Coat&Mix	SC VI.3	R 336.1205, R 336.1702(a)
2. VOCs (From Waterborne Coatings)	22.4 tpy[4]	12-month rolling time period as determined at the end of each calendar month	FG-Coat&Mix (When bypassing the RTO system)	SC VI.3	R 336.1205, R 336.1702(a)
3. Ammonium hydroxide (CAS No. 1336-21-6)	23.3 pph[1, 4]	Hourly	FG-Coat&Mix	SC VI.4	R 336.1225(1)
4. Petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9)	17.5 lb/8-hr[1, 4]	8-hour Shift	FG-Coat&Mix	SC VI.5	R 336.1225(1)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC Content of Waterborne Coating	0.8 lb/gal (minus water)[a, 4] as applied	Instantaneous	FG-Coat&Mix (When bypassing the RTO system)	SC V.1, SC VI.2	R 336.1702(a)
2. VOC Content of Waterborne Coating	0.32 lb/gal (with water)[4] as applied	Instantaneous	FG-Coat&Mix (When bypassing the RTO system)	SC V.1, SC VI.2	R 336.1205
3. Waterborne VOC Coatings	140,000 gal/yr[4]	12-month rolling time period as determined at the end of each calendar month	FG-Coat&Mix (When bypassing the RTO system)	SC VI.3	R 336.1205, R 336.1225(1)

[a] The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings and purge solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and purge solvents in an acceptable manner in compliance with all applicable state rules and federal regulations.[4] **(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.[4] **(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.[4] **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

4. The permittee shall implement and maintain a malfunction abatement plan (MAP) as described in Rule 911(2). 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.
   d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers III.1 and III.2.

   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 60 days, if new equipment is installed or upon request from the AQD 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.[4] **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

5. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between each PTE and the adjacent area on a continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of each PTE on a continuous basis.[4] **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-CoaterC, EU-CoaterD, EU-CoaterG, EU-CoaterH, EU-NewMixroom, or EU-Washroom unless each RTO and the associated PTE are installed, maintained and operated in a satisfactory manner. Satisfactory operation of each RTO includes a minimum VOC destruction efficiency for each RTO of 95 percent (by weight), maintaining a three-hour rolling average combustion zone temperature of at least 1,400°F or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. Satisfactory operation of each PTE includes a minimum capture efficiency for each PTE of FG-Coat&Mix of 100 percent (by weight).[4] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of each RTO to monitor and record the temperature on a continuous basis, while each respective RTO is in use.[4] **(R 336.1205, R 336.1702, R 336.1910)**

3. The permittee shall not operate each emission unit of FG-Coat&Mix unless each associated PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following:[4]
   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 inches H_2O.

   (R 336.1702(a), R 336.1910)

4. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to measure the average facial velocity of air or a device to monitor the pressure differential between each PTE for FG-Coat&Mix and the adjacent area on a continuous basis during operation of each emission unit of FG-Coat&Mix.[4] **(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.[4] **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

2. Within 180 days from commencement of trial operation of EU-CoaterC, EU-CoaterD, EU-CoaterG, EU-CoaterH, or EU-CoaterI being routed through the mix box to SV-RTO3, 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. 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.[4] **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**

3. Within 180 days from commencement of trial operation of EU-CoaterC, EU-CoaterD, EU-CoaterG, EU-CoaterH, or EU-CoaterI routed to the mix box, the permittee shall verify that each enclosure in FG-Coat&Mix meets the definition of PTE or verify capture efficiency of the enclosure, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA

Method, may be specified in an AQD approved Test Protocol 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, 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.[4] **(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.[4] **(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 coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[4] **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a calendar month basis for FG-Coat&Mix:
   a) Bypass start and end times for each emission unit (EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH).
   b) Identity and gallons (with water) of each coating used and reclaimed.
   c) The VOC content (with water) of each coating as applied.
   d) Separate VOC mass emission calculations determining the monthly emission rate in tons per calendar month for the following:
      i) FG-Coat&Mix for emissions routed to the mix box and RTOs
      ii) EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH, and EU-CoaterI during periods of RTO bypass
   e) Separate 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 for the following:
      i) FG-Coat&Mix for emissions routed to the mix box and RTOs
      ii) EU-CoaterD, EU-CoaterE, EU-CoaterF, EU-CoaterG, EU-CoaterH, and EU-CoaterI during periods of RTO bypass

   The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor and make them available to the Department upon request.[4] **(R 336.1205, R 336.1702(a))**

4. The permittee shall keep the following information on an hourly basis for FG-Coat&Mix:
   a) Gallons (with water) of each ammonium hydroxide (CAS No. 1336-21-6) containing material used.
   b) Where applicable, gallons (with water) of each ammonium hydroxide (CAS No. 1336-21-6) containing material reclaimed.
   c) The ammonium hydroxide (CAS No. 1336-21-6) content (with water) in pounds per gallon of each material used.
   d) Ammonium hydroxide (CAS No. 1336-21-6) mass emission calculations determining the emission rate in pounds per hour time period.

   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, 4] **(R 336.1225(1))**

5. The permittee shall keep the following information on an 8-hour shift basis for FG-Coat&Mix:
   a) Gallons (with water) of each petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) containing material used.

b) Where applicable, gallons (with water) of each petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) containing material reclaimed.
c) The petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) content (with water) in pounds per gallon of each material used.
d) Petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) mass emission calculations determining the emission rate in pounds per 8-hour time period.

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, 4] **(R 336.1225(1))**

6. The permittee shall monitor and record, in a satisfactory manner, the combustion zone temperature in each 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 may demonstrate compliance based upon a three-hour rolling average combustion zone temperature. The permittee shall keep all records on file and make them available to the Department upon request.[4] **(R 336.1205, R 336.1225, R 336.1702(a))**

7. The permittee shall monitor and record, in a satisfactory manner, the air flow or pressure differential between each PTE portion of FG-Coat&Mix and the adjacent area, on a continuous basis, to verify that air is entering each PTE. Continuous air flow or pressure differential data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee may demonstrate compliance based upon a three-hour average air flow or pressure differential. The permittee shall keep all records on file and make them available to the Department upon request.[4] **(R 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation or modification of EU-CoaterI 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 the commencement of trial operation of EU-CoaterI .[4] **(R 336.1201(7)(a))**

2. Within 30 days after completion of the installation, construction, reconstruction, relocation or modification of the mix box and the RTO associated with SV-RTO3 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 the commencement of trial operation of FG-Coat&Mix .[4] **(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-RTO1[4] (Formerly "Existing RTO")	32 x 56	65	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-RTO2[4] (Formerly "New RTO")	42 x 76	65	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-RTO3[4]	42 x 76	65	R 336.1225, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
4. SV-CTRD[4] (Bypass for EU-CoaterD only)	31	65	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-CTRE[4] (Bypass for EU-CoaterE only)	20	65	R 336.1225, 40 CFR 52.21(c) & (d)
6. SV-CTRF[4] (Bypass for EU-CoaterF only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
7. SV-CTRG[4] (Bypass for EU-CoaterG only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
8. SV-CTRH[4] (Bypass for EU-CoaterH only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
9. SV-CTRI[4] (Bypass for EU-CoaterI only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall meet all applicable provisions of the New Source Performance Standards (NSPS) for EU-CoaterC as specified in 40 CFR Part 60 Subpart FFF for flexible vinyl and urethane coating and printing.[3] **(40 CFR 60, Subpart FFF)**

2. All special conditions under this emission unit or flexible group shall become effective 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

FG-SolventBased
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Roll Laminators (coaters), natural gas fired ovens, new mix room, and a mix room. Coaters D, G, and H use water and/or solvent-based coatings. EU-NewMixroom is a batch process where coatings and adhesives are produced for internal use and external sales. EU-Washroom is used for cleaning tubs and totes. VOC emissions during use of solvent based material are controlled by PTE and new RTO otherwise exhausted via bypass stack(s). Each emission unit is equipped with a filtration system to control particulate matter. Special conditions under this flexible group shall become void 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

Emission Unit: EU-CoaterD, EU-CoaterG, EU-CoaterH, EU-NewMixroom, EU-Washroom

POLLUTION CONTROL EQUIPMENT

VOC emissions from EU-CoaterD when using solvent-based coatings, EU-CoaterG when using solvent-based coatings, EU-CoaterH when using solvent-based coatings, EU-NewMixroom, and EU-Washroom are each controlled by a PTE and a new RTO. Each emission unit is equipped with a filtration system to control particulate matter.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	89.0 tpy[3]	12-month rolling time period as determined at the end of each calendar month	FG-SolventBased	SC VI.3	R 336.1205, R 336.1702(a)
2. VOCs	62.3 tpy[3]	12-month rolling time period as determined at the end of each calendar month	EU-CoaterD and EU-CoaterG during periods of New RTO bypass	SC VI.3	R 336.1702(a)
3. VOCs	42.0 tpy[3]	12-month rolling time period as determined at the end of each calendar month	EU-CoaterH during periods of New RTO bypass	SC VI.3	R 336.1702(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC Content of Waterborne Coating	0.54 lb/gal (minus water)[a, 3] as applied uncontrolled	Instantaneous	EU-Coater D, EU-Coater G and EU-CoaterH	SC V.1, SC VI.2	R 336.1702(a)

[a] The phrase “minus water” shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste coatings and purge solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and purge solvents in an acceptable manner in compliance with all applicable state rules and federal regulations.[3] **(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.[3] **(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.[3] **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

4. The permittee shall implement and maintain a malfunction abatement plan (MAP) as described in Rule 911(2). 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.
   d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers III.1 and III.2.

   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 60 days, if new equipment is installed or upon request from the AQD 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.[3] **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

5. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between each PTE and the adjacent area on a continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of each PTE on a continuous basis.[3] **(R 336.1205, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For EU-NewMixroom, the permittee shall equip all mixing tanks and high-speed dispersion mills with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary for the safe clearance of the mill shaft. The tank opening shall be covered at all times, except when adding to, removing, or mixing the contents. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall not operate EU-CoaterD (except for periods when using water-based coatings), EU-CoaterG (except for periods when using water-based coatings), EU-CoaterH (except for periods when using water-based coatings), EU-NewMixroom, or EU-Washroom unless the New RTO and the associated PTE are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the New RTO includes a minimum VOC destruction efficiency for the New RTO of 95 percent (by weight), maintaining a three-hour rolling average combustion zone temperature of at least 1,400°F or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. Satisfactory operation of each PTE includes a minimum capture efficiency for each PTE of FG-SolventBased of 100 percent (by weight).[3] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the New RTO to monitor and record the temperature on a continuous basis, while the New RTO is in use during operation of FG-SolventBased.[3] **(R 336.1205, R 336.1702, R 336.1910)**

4. The permittee shall not operate each emission unit of FG-SolventBased unless each associated PTE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires the following:[3]
   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 inches H_2O.
   (R 336.1702(a), R 336.1910)

5. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to measure the average facial velocity of air or a device to monitor the pressure differential between each PTE for FG-SolventBased and the adjacent area on a continuous basis during operation of each emission unit of FG-SolventBased.[3] **(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.[3] **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[3] **(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 coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a calendar month basis:

   a) Use of New RTO or bypass start and end times for each emission unit.
   b) Identity and gallons (with water) of each coating used and reclaimed.
   c) The VOC content (with water) of each coating as applied.
   d) Separate VOC mass emission calculations determining the monthly emission rate in tons per calendar month for the following:
      i) FG-SolventBased,
      ii) EU-CoaterD and EU-CoaterG during periods of New RTO bypass, and
      iii) EU-CoaterH during periods of New RTO bypass.
   e) Separate 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 for the following:
      i) FG-SolventBased,
      ii) EU-CoaterD and EU-CoaterG during periods of New RTO bypass, and
      iii) EU-CoaterH during periods of New RTO bypass.

The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor and make them available to the Department upon request.[3] **(R 336.1205, R 336.1702(a))**

4. The permittee shall monitor and record, in a satisfactory manner, the combustion zone temperature in the New 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 may demonstrate compliance based upon a three-hour rolling average combustion zone temperature. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall monitor and record, in a satisfactory manner, the air flow or pressure differential between each PTE portion of FG-SolventBased and the adjacent area, on a continuous basis, to verify that air is entering each PTE. Continuous air flow or pressure differential data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee may demonstrate compliance based upon a three-hour average air flow or pressure differential. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(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-RTO2[a, 3] (Formerly "New RTO")	42 x 76	65	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-CTRD[3] (Bypass for EU-CoaterD only)	31	65	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-CTRG[3] (Bypass for EU-CoaterG only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-CTRH[3] (Bypass for EU-CoaterH only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-RTO1[a, 3] (Formerly "Existing RTO")	32 x 56	65	R 336.1225, 40 CFR 52.21(c) & (d)
[a] The regulated air contaminants from EU-NewMixroom are exhausted to SV-ExistRTO and will be exhausted to SV-NewRTO upon completion of the re-route project authorized by this Permit to Install. Notification of this change is required by SC VII.1.			

IX. OTHER REQUIREMENT(S)

1. All special conditions under this emission unit or flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

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

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

FG-TACs
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Toxic air contaminants (TAC) emitted from five (5) emission units. Special conditions under this flexible group shall become void 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

Emission Unit: EU-CoaterC, EU-NewMixroom, EU-CoaterD, EU-CoaterG, EU-CoaterH

POLLUTION CONTROL EQUIPMENT

VOC emissions from EU-CoaterC, EU-NewMixroom, EU-CoaterD when using solvent-based coatings, EU-CoaterG when using solvent-based coatings, and EU-CoaterH when using solvent-based coatings are each controlled by a PTE and an RTO. Each emission unit is equipped with a filtration system to control particulate matter.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. 1,4-dioxane (CAS No. 123-91-1)	1,115.5 lb/yr[3]	12-month rolling time period as determined at the end of each calendar month	FG-TACs	SC VI.3	R 336.1225(1)
2. acrylic acid (CAS No. 79-10-7)	5,574.3 lb/yr[3]	12-month rolling time period as determined at the end of each calendar month	FG-TACs	SC VI.3	R 336.1225(1)
3. formaldehyde (CAS No. 50-00-0)	446.2 lb/yr[3]	12-month rolling time period as determined at the end of each calendar month	FG-TACs	SC VI.3	R 336.1225(1)
4. petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9)	15.9 lb/8-hr[3]	Pounds per 8-hr	FG-TACs	SC VI.4	R 336.1225(1)
5. ammonium hydroxide (CAS No. 1336-21-6)	19.3 pph[3]	Pounds per hour	FG-TACs	SC VI.5	R 336.1225(1)

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))**

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.[3] **(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 coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.[3] **(R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a calendar month basis for FG-TACs:
   a) Gallons (with water) of each 1,4-dioxane (CAS No. 123-91-1), acrylic acid (CAS No. 79-10-7), and formaldehyde (CAS No. 50-00-0) (TAC_{Annual}) containing material used.
   b) Where applicable, gallons (with water) of each TAC_{Annual} containing material reclaimed.
   c) Each TAC_{Annual} content (with water) in pounds per gallon of each material used.
   d) Each TAC_{Annual} mass emission calculations determining the monthly emission rate in tons per calendar month.
   e) Each TAC_{Annual} 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, 3] **(R 336.1225(1))**

4. The permittee shall keep the following information on 8-hour basis for FG-TACs:
   a) Gallons (with water) of each petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) containing material used.
   b) Where applicable, gallons (with water) of each petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) containing material reclaimed.
   c) The petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) content (with water) in pounds per gallon of each material used.
   d) Petroleum distillates, solvent-dewaxed, light paraffinic (CAS No. 64742-56-9) mass emission calculations determining the emission rate in pounds per 8-hr time period.

   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, 3] **(R 336.1225(1))**

5. The permittee shall keep the following information on an hourly basis for FG-TACs:
   a) Gallons (with water) of each ammonium hydroxide (CAS No. 1336-21-6) containing material used.
   b) Where applicable, gallons (with water) of each ammonium hydroxide (CAS No. 1336-21-6) containing material reclaimed.
   c) The ammonium hydroxide (CAS No. 1336-21-6) content (with water) in pounds per gallon of each material used.
   d) Ammonium hydroxide (CAS No. 1336-21-6) mass emission calculations determining the emission rate in pounds per hour time period.

   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, 3] **(R 336.1225(1))**

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-ExistRTO[a, 3] (Existing RTO)	32 x 56	65	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-NewRTO[a, 3] (New RTO)	42 x 76	65	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-CTRD[3] (Bypass for EU-CoaterD only)	31	65	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-CTRG[3] (Bypass for EU-CoaterG only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-CTRH[3] (Bypass for EU-CoaterH only)	40	65	R 336.1225, 40 CFR 52.21(c) & (d)
[a] The regulated air contaminants from EU-NewMixroom are exhausted to SV-ExistRTO and will be exhausted to SV-NewRTO upon completion of the re-route project authorized by this Permit to Install. Notification of this change is required by SC VII.1.			

IX. OTHER REQUIREMENT(S)

1. All special conditions under this emission unit or flexible group shall become void 90 days after completion of routing of any emission unit in FG-Coat&Mix to the mix box. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.

FGFACILITY 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	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILTIY	SC VI.3	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILTIY	SC VI.3	R 336.1205(3)
3. VOCs	493 lb/day[3]	Calendar day	FGFACILTIY	SC VI.4	R 336.1205(1)(a)(iii)
4. VOCs	Less than 90.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILTIY	SC VI.5	R 336.1205(3)
5. benzophenone (CAS No. 119-61-9)	0.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILTIY	SC VI.6	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 coating as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

2. The permittee shall determine the VOC content, water content and density of any coating, as received and as applied, 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(3), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

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

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

4. The permittee shall keep the following information on a daily basis for the FGFACILITY:
   a) Use of New or Existing RTO or bypass if applicable.
   b) Identity and gallons (with water) of each coating used and if applicable reclaimed.
   c) The VOC content (with water) of each coating as applied.
   d) VOC mass emission calculations determining the daily emission rate in pounds per calendar day.

   The permittee shall keep the records using mass balance or an alternative method and format acceptable to the AQD District Supervisor and make them available to the Department upon request.[3] **(R 336.1205(1)(a)(iii))**

5. The permittee shall keep the following information on a monthly basis for FGFACILITY:
   a) Gallons or pounds of each VOC containing material used.
   b) Where applicable, gallons or pounds of each VOC containing material reclaimed.
   c) VOC content, in pounds per gallon or pounds per pound, of each VOC containing material used.
   d) VOC emission calculations determining the monthly emission rate in tons per calendar month.
   e) 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 and make them available to the Department upon request. **(R 336.1205(3))**

6. The permittee shall keep the following information on a monthly basis for FGFACILITY:
   a) Gallons (with water) of each benzophenone (CAS No. 119-61-9) containing material used.
   b) Where applicable, gallons (with water) of each benzophenone (CAS No. 119-61-9) containing material reclaimed.
   c) The benzophenone (CAS No. 119-61-9) content (with water) in pounds per gallon of each material used. (Emissions of 2% of the weight percent of Benzophenone (CAS No. 119-61-9) are assumed based on reactivity).
   d) Benzophenone (CAS No. 119-61-9) mass emission calculations determining the monthly emission rate in tons per calendar month.
   e) Benzophenone (CAS No. 119-61-9) 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 and make them available to the Department upon request. [1,3] **(R 336.1225(2))**

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).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
[3] This condition applies until 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.
[4] This condition applies 90 days after the completion of routing of any emission unit in FG-Coat&Mix to the mix box.