

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

November 1, 2022

**PERMIT TO INSTALL
46-13A**

**ISSUED TO
KPMF USA**

**LOCATED AT
67 Kay Industrial Drive
Lake Orion, Michigan 48359**

**IN THE COUNTY OF
Oakland**

**STATE REGISTRATION NUMBER
N2702**

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: August 30, 2022	
DATE PERMIT TO INSTALL APPROVED: November 1, 2022	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

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

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

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

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-COLDCLEANER	A cold cleaner for cleaning application pumps located in a new coating mix kitchen room.	TBD	FG-2022
EU-LINE2	To apply primer, adhesive, or urethane clear topcoat to the plastic film surface. Consisting of two separate coating application stations but only one application station can apply a coating. VOC emissions will be captured by a non-fugitive enclosure (NFE). VOC emissions from material will be destroyed by a new shared regenerative thermal oxidizer (RTO No. 2) except VOC emissions will be uncontrolled (by-pass mode) during water-based primer. Note: The coating applications can only run one material at a time. Therefore, multiple application layers will mean multiple runs.	TBD	FG-2022
EU-LINE3	Manufacturing of plastic casted film rolls using coating applicators (solvent-based materials) such as reverse roll, rotary screen, knife over roller or slot die. VOC emissions will be controlled by non-fugitive enclosure (NFE) and a regenerative thermal oxidizer (RTO No. 2). (Similar to an existing EU-LINE1, formerly EUCoatingLn)	TBD	FG-2022
EU-LINE1 (Formerly EUCoatingLn)	Manufacturing of plastic casted film rolls using coating applicators such as reverse roll, rotary screen, knife over roller or slot die. In addition to the manufacture of plastic film, the coating line applies adhesive, ink, or urethane clear topcoat to various plastic film surfaces. Regenerative thermal oxidizer (RTO No. 1) will control VOC emissions from this emission unit.	05-17-2013	

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-LINE1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Manufacturing of plastic casted film rolls using coating applicators such as reverse roll, rotary screen, knife over roller or slot die. In addition to the manufacture of plastic film, the coating line applies adhesive, ink, or urethane clear topcoat to various plastic film surfaces.

Flexible Group ID: NA.

POLLUTION CONTROL EQUIPMENT

The VOC emissions from this line will be controlled by Non-Fugitive Enclosure (NFE) and a regenerative thermal oxidizer (RTO No. 1).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	16.7 tpy	12-month rolling time period as determined at the end of each calendar month	EU-LINE1	SC VI.1, SC VI.2 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, adhesive, ink, etc. (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1702(a))**
2. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205, R 336.1225, R 336.1702(a))**
3. The permittee shall not operate EU-LINE1 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 60 days after initial startup, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

- 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 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-LINE1 with rollers applicators or comparable technology with equivalent transfer efficiency. **(R 336.1702(a))**
2. The permittee shall not operate EU-LINE1 unless the NFE and the RTO No. 1 are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the capture system and the RTO No. 1 includes a minimum VOC capture efficiency of 100 percent (by weight), a minimum VOC destruction efficiency of 98 percent (by weight), a minimum retention time of 0.5 seconds and a minimum combustion temperature of 1550°F. The minimum combustion chamber temperature may be adjusted based on the most recent acceptable stack test which achieved a minimum overall destruction efficiency of 98 percent, and which is specified in the MAP required in SC III.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 RTO NO. 1 to monitor and record the temperature on a continuous basis, during operation of EU-LINE1. **(R 336.1205, R 336.1225, R 336.1702)**
4. The permittee shall not operate EU-LINE1 unless the NFE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the NFE is operating at a pressure lower than all adjacent areas, so that air flows into the NFE through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(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 approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Upon request from AQD District Supervisor, the permittee shall verify the capture efficiency and the destruction efficiency of the RTO No. 1 for EU-LINE1 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 and 40 CFR Part 60, Appendix A, respectively. 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. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004)**

3. During the capture efficiency performance test of the NFE required by SC V.2, the permittee shall verify that the direction of air flow at each NDO of the NFE for EU-LINE1 is into the NFE. The verification of the direction of air flow at the NDOs shall be conducted using the smoke tube test method, or an alternate method approved by the AQD Technical Programs Unit and District Office. 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. The permittee shall submit a notice of the anticipated test date to the AQD Technical Programs Unit and District Office no later than 30 days prior to the test date and a complete test report shall be submitted to the AQD Technical Programs Unit and District Office within 60 days after the completion of the testing. All test methods, plans, and procedures shall be approved by the AQD prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.1702(a))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a calendar month basis for the EU-LINE1:
 - a) Gallons (with water) of each material used.
 - b) VOC content (with water) of each material as applied.
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative method, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1702(a))**
4. The permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of the RTO No. 1 on a continuous basis, during operation of EU-LINE1. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1205, R 336.1225, 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. SVRTO-NO.1	44	41	R 336.1225, R 336.1901, 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).

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-2022	The mix kitchen cold cleaner and two plastic film coating lines. VOC emissions from the two plastic coating lines will be captured by non-fugitive enclosures (NFE). VOC emissions will be destroyed by a shared regenerative thermal oxidizer (RTO No. 2) except the VOC emissions will be uncontrolled (by-pass mode) during water-based primer for EU-LINE2. The mix kitchen cold cleaner will not be part of the NFE. Emissions from the cold cleaner will be released into the mix kitchen room and discharged from the room by the air make up unit mounted on the roof.	EU-COLDCLEANER, EU-LINE2, EU-LINE3

FG-2022
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The mix kitchen cold cleaner and two plastic film coating lines. VOC emissions from the two plastic coating lines will be captured by non-fugitive enclosures (NFE). VOC emissions will be destroyed by a shared regenerative thermal oxidizer (RTO No. 2) except the VOC emissions will be uncontrolled (by-pass mode) during water-based primer for EU-LINE2. The mix kitchen cold cleaner will not be part of the NFE. Emissions from the cold cleaner will be released into the mix kitchen room and discharged from the room by the air make up unit mounted on the roof.

Emission Unit: EU-COLDCLEANER, EU-LINE2, EU-LINE3

POLLUTION CONTROL EQUIPMENT

Cold Cleaner: VOCs uncontrolled. Closed cover when not in use.

Line No. 2: VOCs controlled by a non-fugitive enclosure (NFE) and RTO No. 2 except water-based primer (bypass mode).

Line No. 3: VOCs controlled by an NFE and RTO No. 2.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	51.4 tpy	12-month rolling time period as determined at the end of each calendar month	FG-2022	SC VI.3	R 336.1205(1)(a)(ii), R 336.1702(a)
2. Dimethyl ethanolamine (CAS No. 108-01-0)	8.0 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FG-2022	SC VI.4	R 336.1225(1)
3. Cumene (CAS No. 98-82-8)	0.1 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FG-2022	SC VI.4	R 336.1225(1)

II. MATERIAL LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC content of water based prime	0.3 lb/gal (minus water) ^a as applied	Instantaneous	Uncontrolled portion of EU-LINE2	SC VI.2, 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. **(R 336.1602(4))**

2. The permittee shall not use more than 8.0 gallons of cleaning solvent in EU-COLDCLEANER per 12-month rolling time period. **(R 336.1224, R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall capture all waste primer, adhesive, urethane clear topcoat, cleanup solvents, etc. (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1225, R 336.1702(a))**
2. The permittee shall handle all VOC and/or HAP containing materials, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205(3), R 336.1225, R 336.1702(a))**
3. The permittee shall not operate FG-2022 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 60 days after initial startup, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
 - 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 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

4. The permittee shall maintain a negative pressure differential between the non-fugitive enclosure and the adjacent area through each natural draft opening (NDO). An NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**
5. Cleaned parts in EU-COLDCLEANER shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1225, R 336.1702(a), R 336.1707(3)(b))**
6. The permittee shall perform routine maintenance on EU-COLDCLEANER as recommended by the manufacturer. **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain FG-2022 with rollers applicators or comparable technology with equivalent transfer efficiency. **(R 336.1702(a))**
2. The permittee shall not operate FG-2022, except when only water-based primer is being applied (bypass mode for EU-LINE2), unless the RTO No. 2 are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO No. 2 includes a minimum VOC destruction efficiency of 98 percent (by weight), a minimum retention time of 0.5 seconds and a minimum combustion temperature of 1550°F. The minimum combustion chamber temperature may be adjusted based on the most recent acceptable stack test

which achieved a minimum overall destruction efficiency of 98 percent, and which is specified in the MAP required in SC III.3. **(R 336.1205(1)(a)(ii), 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 RTO NO. 2 to monitor and record the temperature on a continuous basis, during operation of FG-2022. **(R 336.1205(1)(a)(ii), R 336.1225, R 336.1702)**
4. The permittee shall not operate any portion of FG-2022 unless the non-fugitive enclosure is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor. Satisfactory operation includes maintaining a negative pressure differential between the non-fugitive enclosure and the adjacent area through each NDO, as specified in SC III.4, so that air flows into the non-fugitive enclosure through all NDOs (to show compliance with VOC capture efficiency of 100 percent (by weight)). **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**
5. EU-COLDCLEANER shall be equipped with a device for draining cleaned parts. **(R 336.1225, R 336.1702(a), R 336.1707(3)(b))**
6. EU-COLDCLEANER shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1707(3)(a), R 336.1910)**
7. The cover of EU-COLDCLEANER shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1225, R 336.1702(a), R 336.1707(3)(a), R 336.1910)**
8. EU-COLDCLEANER must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7 only when using a solvent having a Reid vapor pressure of more than 0.6 psia or heated above 120°F. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1707(2)(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 approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Within 180 days of trial operation, and semi-annually thereafter, and upon request of the AQD District Supervisor, the permittee shall verify that the direction of air flow at each natural draft opening (NDO) is into the non-fugitive enclosure, using a smoke test (i.e., smoke bomb, smoke tube). 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. **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**
3. Within 180 days of trial operation, the permittee shall verify the VOC destruction efficiency of RTO No. 2 for FG-2022 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. Verification of emission rates includes the submittal of a complete report of

the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a calendar month basis for the FG-2022:
 - a) Gallons (with water) of each material used
 - b) Type of material (water-based and/or solvent-based) used along with operation of RTO No. 2 status (on/off) and operation status of each EU (on and/or bypass mode).
 - c) VOC content (with water) of each material as applied.
 - d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e) 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, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1702(a))**

4. The permittee shall keep the following information on a calendar month basis for FG-2022:
 - a) Gallons (with water) of each dimethylethanolamine (CAS No. 108-01-0) and cumene (CAS No. 98-82-8) containing material used.
 - b) Where applicable, gallons (with water) of each dimethylethanolamine (CAS No. 108-01-0) and cumene (CAS No. 98-82-8) containing material reclaimed.
 - c) The dimethylethanolamine (CAS No. 108-01-0) and cumene (CAS No. 98-82-8) content (with water) in pounds per gallon of each material used.
 - d) dimethylethanolamine (CAS No. 108-01-0) and cumene (CAS No. 98-82-8) mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e) dimethylethanolamine (CAS No. 108-01-0) and cumene (CAS No. 98-82-8) 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, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225)**

5. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the RTO No. 2 on a continuous basis during operation of FG-2022. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep the temperature records including temperature summary in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a)(ii), R 336.1225, R 336.1702)**
6. The permittee shall maintain detailed record to show compliance with SC III.3 in a satisfactory manner, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a)(ii), R 336.1225, R 336.1702)**

7. The permittee shall maintain the following information on file for EU-COLDCLEANER: **(R 336.1225, R 336.1702(a), R 336.1707(2))**
 - a) A serial number, model number, or other unique identifier.
 - b) The date the unit was installed, manufactured or that it commenced operation.
 - c) The air/vapor interface area.
 - d) The Reid vapor pressure of each solvent used.
8. The permittee shall maintain written operating procedures for EU-COLDCLEANER. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1910, R 336.1707(4))**
9. For EU-COLDCLEANER, as noted in Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1225, R 336.1702(a), R 336.1707(3)(c))**
10. The permittee shall keep records of cleaning solvent used in EU-COLDCLEANER in gallons on monthly and 12month rolling time periods. Records shall be kept in a format acceptable to the AQD District Supervisor, kept on file, and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FG-2022. **(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. SVRTO-NO.2 (RTO No. 2 Stack)	66	51	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVRTO- NO.2BYPASS (Bypass Stack for EU-LINE2 Water- based Primer Only)	50	51	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV- MIXKITCHENAMU (Cold Cleaner Discharge Opening)	22 x 38	40	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).