

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

September 29, 2021

PERMIT TO INSTALL
350-07D

ISSUED TO
Romulus Manufacturing and Distribution Center

LOCATED AT
28200 Wick Road
Romulus, Michigan 48174

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
B2658

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: July 8, 2021	
DATE PERMIT TO INSTALL APPROVED: September 29, 2021	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))	Flexible Group ID
EU-OP1A	An eighty (80) kilowatt electric furnace that heats copper, silver, and tin, and a product hopper controlled by a cyclone followed by a cartridge type dust collector. This is part of the alloy atomization process. Stack ID SV00001	FG-MAP
EU-OP2A	An oversize screen and reduction grinder controlled by a Dustex 2-Bay dust collector. This is part of the alloy atomization process. Stack ID SV00002	FG-MAP
EU-OP4A	A heat treat process, a twenty (20) kilowatt alloy dryer, and a table press all controlled by a Dustex 3-Bay dust collector. This is part of the alloy atomization process. Stack ID SV00003	FG-MAP
EU-OP5A	A capsule filling room that is equipped with two (2) metal powder separation cyclones and a vacuum system. Room emissions are controlled by a Torit dust collector. This is part of the alloy atomization process. Stack ID SV00004 & SV-Vacuum	FG-MAP
EU-OP1P	A base room planetary mixer and weight scale, and a catalyst room dispersion mixer and weight scale controlled by a cartridge filter dust collector that is shared with EU-OP3M. This is a Poly Vinyl Silicone (PVS) process in which liquids, powders, and vinyl fluid are mixed and packaged as a two-part (catalyst and base) quick-set dental impression product. Stack ID SV00011	FG-MAP
EU-OP1C	A ZOE Permalistic Base/Catalyst process that consists of three (3) mixers, three (3) scales, three (3) roll mixers, three (3) drum transfer stations, and a powder fill room all controlled by a common Torit Donaldson dust collector. This is part of the chemical process area. Stack ID SV00013	FG-MAP, FG-ChemProcess
EU-OP2C	A screen table, mixer, tumbler, and a pigment mix room all controlled by a common Torit Donaldson dust collector. This is part of the chemical process area. Stack ID SV00013	FG-MAP, FG-ChemProcess
EU-OP6C	A reactor room that consists of a Sta-Warm kettle and two (2) reaction vessels (Pfaudler #1 and #2). The Sta-Warm kettle and Pfaudler #1 are controlled by exhaust filter and carbon pads. This is part of the chemical process area. Stack ID SV00014 & SV-Pfaudler#2	FG-MAP
EU-OP7C	A size reduction room with a reduction grinder and cyclone separator controlled by a cartridge type dust collector. This is part of the chemical process area. Stack ID SV00015	FG-MAP
EU-OP3M	An Activator ribbon blender, filling and inking station, and a pigment station all controlled by a cartridge filter dust collector that is shared with EU-OP1P. This is part of the chemical process area. Stack ID SV00011	FG-MAP, FG-OP2M

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EU-STRGTNKS	Fourteen (14) tanks with agitators. Each tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.	FG-MAP, FG-OP2M
EU-RAWTNKS	Four (4) raw material storage tanks. Each tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.	FG-MAP, FG-OP2M
EU-WASTETNK	A waste product tank. The tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.	FG-MAP, FG-OP2M
EU-PHTNK	A pH adjustment tank. The tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.	FG-MAP, FG-OP2M
EU-RAWTNKS2	A 3,000-gallon storage tank within the tank room and an 8,500 gallon tank and 12,500 gallon tank within Tank Room 2. The tank room has a general ventilation exhaust. This is part of the METREX process area.	FG-MAP, FG-OP2M

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-OP1A
EMISSION UNIT CONDITIONS**

DESCRIPTION

A eighty (80) kilowatt electric furnace that heats copper, silver, and tin, and a product hopper controlled by a cyclone followed by a cartridge type dust collector. This is part of the alloy atomization process.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Cyclone and cartridge type dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.003 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP1A	GC 13	R 336.1331
2. PM ₁₀	0.02 pph	Hourly	EU-OP1A	GC 13	40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the cartridge type dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))
2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1224, R 336.1225, R 336.1901)

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. SV00001	10.0	50.0	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).

EU-OP2A EMISSION UNIT CONDITIONS

DESCRIPTION

An oversize screen and reduction grinder controlled by a Dustex 2-Bay dust collector. This is part of the alloy atomization process.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Dustex 2-Bay dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP1A	GC 13	R 336.1331
2. PM-10	0.27 pph	Hourly	EU-OP1A	GC 13	40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP2A unless the Dustex dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the Dustex dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**

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. SV00002	18.0	30.0	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).

**EU-OP4A
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A heat treat process, a twenty (20) kilowatt alloy dryer, and a table press all controlled by a Dustex 3-Bay dust collector. This is part of the alloy atomization process.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Dustex 3-Bay dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP4A	GC 13	R 336.1331
2. PM-10	0.4 pph	Hourly	EU-OP4A	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP4A unless the Dustex dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the Dustex dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**

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. SV00003	20.0	30.0	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).

EU-OP5A EMISSION UNIT CONDITIONS

DESCRIPTION

A capsule filling room that is equipped with two (2) metal powder separation cyclones and a vacuum system. Room emissions are controlled by a Torit dust collector. This is part of the alloy atomization process.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Torit dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.0093 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP5A	GC 13	R 336.1331
2. PM-10	0.21 pph	Hourly	EU-OP5A	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
3. Mercury	0.0032 pph	Hourly	EU-OP5A	GC 13	R 336.1224, R 336.1225

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP4A unless the Torit dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the Torit dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2802, 40 CFR 52.21(c) and (d))

2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**

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. SV00004	15.0	10.0	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-Vacuum	15.0	10.0	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).

**EU-OP1P
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A base room planetary mixer and weight scale, and a catalyst room dispersion mixer and weight scale controlled by a cartridge filter dust collector that is shared with EU-OP3M. This is a Poly Vinyl Silicone (PVS) process in which liquids, powders, and vinyl fluid are mixed and packaged as a two-part (catalyst and base) quick-set dental impression product.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Cartridge filter dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.005 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP1P	GC 13	R 336.1331
2. PM-10	0.135 pph	Hourly	EU-OP1P	GC 13	40 CFR 52.21 Subparts (c) & (d)
3. PM-2.5	0.135 pph	Hourly	EU-OP1P	GC 13	40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 133,500 tons of powder materials/additives per 12-month rolling time period as determined at the end of each calendar month through EU-OP1P. **(R 336.1205, R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP1P unless the cartridge filter dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the cartridge filter dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))
2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1224, R 336.1225, R 336.1901)
3. The permittee shall keep, in a satisfactory manner, records of the amount of powder materials/additives processed in tons per 12-month rolling time period as determined at the end of each calendar month for EU-OP1P. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))

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. SV00011	22.4	12.0	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).

**EU-OP6C
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A reactor room that consists of a Sta-Warm kettle and two (2) reaction vessels (Pfaudler #1 and #2). The Sta-Warm kettle and Pfaudler #1 are controlled by exhaust filter and carbon pads. This is part of the chemical process area.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Exhaust filter and carbon pads

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP6C Sta-Warm Kettle and Pfaudler #1	GC 13	R 336.1331
2. PM-10	0.02 pph	Hourly	EU-OP6C Sta-Warm Kettle and Pfaudler #1	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
3. PM	0.1 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP6C Pfaudler #2	GC 13	R 336.1331
4. PM-10	0.18 pph	Hourly	EU-OP6C Pfaudler #2	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

1. The permittee shall not produce more than 28,000 pounds of resin per 12-month rolling time period as determined at the end of each calendar month in EU-OP6C. (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the Sta-Warm kettle and Pfaudler #1 portions of EU-OP6C unless the exhaust filter and carbon pads are installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the exhaust filter and carbon pads on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))
2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1224, R 336.1225, R 336.1901)
3. The permittee shall keep, in a satisfactory manner, records of the amount of resin produced in pounds per 12-month rolling time period as determined at the end of each calendar month for EU-OP6C. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) & (d))

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. SV00014	7.0	22.0	R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)
2. SV-Pfudler #2	16.0	20.0	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).

**EU-OP7C
EMISSION UNIT CONDITIONS**

DESCRIPTION

A size reduction room with a reduction grinder and cyclone separator controlled by a cartridge type dust collector. This is part of the chemical process area.

Flexible Group ID: FG-MAP

POLLUTION CONTROL EQUIPMENT

Cartridge type dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP7C	GC 13	R 336.1331
2. PM-10	0.027 pph	Hourly	EU-OP7C	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP7C unless the cartridge type dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the cartridge type dust collector on a continuous basis. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**

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. SV00015	10.0	8.0	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).

EU-OP3M EMISSION UNIT CONDITIONS

DESCRIPTION

An Activator ribbon blender, filling and inking station, and a pigment station all controlled by a cartridge filter dust collector that is shared with EU-OP1P. This is part of the chemical process area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Cartridge filter dust collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Hourly	EU-OP3M	GC 13	R 336.1331
2. PM-10	0.27 pph	Hourly	EU-OP3M	GC 13	40 CFR 52.21 Subparts (c) & (d)
3. PM-2.5	0.27 pph	Hourly	EU-OP3M	GC 13	40 CFR 52.21 Subparts (c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-OP3M unless the cartridge filter dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop on the cartridge filter dust collector on a continuous basis. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**

2. The permittee shall complete all required inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**

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. SV00011	22.4	12.0	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-ChemProcess	A portion of the chemical process area which is controlled by a common Torit Donaldson dust collector. Stack ID SV00013	EU-OP1C and EU-OP2C
FG-OP2M	All storage tanks in the tank room that consists of fourteen (14) tanks with agitators, four (4) raw material storage tanks, a waste product tank and a pH adjustment tank. Each tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.	EU-STRGTNKS, EU-RAWTNKS, EU-WASTETNK, EU-PHTNK, EU-RAWTNKS2, EU-OP3M
FG-MAP	Flexible group for requiring a malfunction abatement plan for each of the control devices associated with the processes.	EU-OP1A, EU-OP2A, EU-OP4A, EU-OP5A, EU-OP1P, EU-OP1C, EU-OP2C, EU-OP6C, EU-OP7C, EU-OP3M, EU-STRGTNKS, EU-RAWTNKS, EU-WASTETNK, EU-PHTNK, EU-RAWTNKS2

**FG-ChemProcess
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

A portion of the chemical process area which is controlled by a common Torit Donaldson dust collector. Stack ID SV00013

Emission Unit: EU-OP1C and EU-OP2C

POLLUTION CONTROL EQUIPMENT

Torit Donaldson Dust Collector

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.002 lbs per 1000 lbs of exhaust gases calculated on a dry gas basis.	Test Protocol*	FG-ChemProcess	GC 13	R 336.1331
2. PM-10	0.09 pph	Test Protocol*	FG-ChemProcess	GC 13	40 CFR 52.21 Subparts (c) & (d)

*Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 14,400 pounds of material per calendar day through FG-ChemProcess. (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-ChemProcess unless the Torit Donaldson dust collector is installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))
2. The permittee shall not operate FG-ChemProcess unless a gauge, which measures the pressure drop across the Torit Donaldson dust collector, is installed, maintained and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

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 inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1901)**
2. The permittee shall keep, in a satisfactory manner, records of the amount of material processed in pounds per calendar day through FG-ChemProcess. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**
3. The permittee shall inspect the pressure drop monitors of FG-ChemProcess on a daily basis and keep, in a satisfactory manner, records of the inspections. The inspection records shall include the date, the time, the initials of the person(s) inspecting the pressure drop readings from the inspection. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

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. SV00013	16.0	41.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FG-OP2M
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All storage tanks in the tank room that consists of fourteen (14) tanks with agitators, four (4) raw material storage tanks, a waste product tank and a pH adjustment tank. Each tank is less than 40,000 gallons and is equipped with a conservation vent and an emergency vent. The tank room has a general ventilation exhaust. This is part of the METREX process area.

Emission Unit: EU-STRGTNKS, EU-RAWTNKS, EU-WASTETNK, EU-PHTNK, EU-OP3M, EU-RAWTNKS2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	21.4 tpy	12-month rolling time period as determined at the end of each calendar month	FG-OP2M	SC VI.1, SC VI.3, SC VI.4	R 336.1702

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only store or transfer materials in FG-OP2M that are volatile organic compounds or noncarcinogenic liquids having a true vapor pressure of 1.5 psia or less at actual storage conditions. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 inspections and monitoring in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall keep, in a satisfactory manner, monthly records of the type and physical properties of the materials stored in FG-OP2M. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**
3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**
4. The permittee shall keep the following information on a monthly basis for FG-OP2M:
 - a) Gallons of each VOC containing material used.
 - b) VOC content of each VOC containing material.
 - 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.
 - e) Hours of operations.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FG-MAP FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Flexible group for requiring a malfunction abatement plan for each of the control devices associated with the processes.

Emission Unit: EU-OP1A, EU-OP2A, EU-OP4A, EU-OP5A, EU-OP1P, EU-OP1C, EU-OP2C, EU-OP6C, EU-OP7C, EU-OP3M, FG-OP2M, EU-STRGTNKS, EU-RAWTNKS, EU-WASTETNK, EU-PHTNK, EU-RAWTNKS2

POLLUTION CONTROL EQUIPMENT

See Emission Unit Descriptions

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the emission units specified in FG-MAP unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the air-cleaning devices, has been submitted within 180 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

NA

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).