

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

September 23, 2021

**PERMIT TO INSTALL**  
155-05D

**ISSUED TO**  
Wacker Chemical Corporation

**LOCATED AT**  
3301 Sutton Road  
Adrian, Michigan 49221

**IN THE COUNTY OF**  
Lenawee

**STATE REGISTRATION NUMBER**  
A2849

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: <b>September 8, 2021</b>	
DATE PERMIT TO INSTALL APPROVED: <b>September 23, 2021</b>	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 <sub>2</sub> 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 <sub>2</sub> S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO <sub>x</sub>	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 <sub>2</sub>	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
EUPOLYMERS	Polymer fluids area process equipment (reactor-mixers 0516RX, 0803RX, 0805RX, 0807RX, 0808RX, 0810RX, 0811RX, 0813RX, 0847TK, 0861TK, 0862TK, 0860TK; vacuum pumps 0885BL, 0886BL, 0888BL; evaporators 0800CL, 0812CL; with vacuum system and scrubber 0550TK).	NA
EUHCR	Heat curable rubber production area. Area for production of silicone fluids, emulsions, sealants, and rubbers with baghouse control and a two scrubber in-series scrubbing system, 073101SC and 073102SC.	NA
EU0953RX	Jacketed 1000-gallon reactor/mixer with ancillary equipment to charge solids and liquids and a plate and frame heat exchanger to cool product. Emission controls include a dust collector and a condenser.	NA
EU0902RX	1000-gallon reactor with condenser for emissions control.	NA
EU0915RX	2600-gallon reactor (with 2100-gallon working capacity) and quench tank with condenser for emissions control.	NA

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.

**EUPOLYMERS  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Polymer fluids area process equipment (reactor-mixers 0516RX, 0803RX, 0805RX, 0807RX, 0808RX, 0810RX, 0811RX, 0813RX, 0847TK, 0861TK, 0862TK, 0860TK; vacuum pumps 0885BL, 0886BL, 0888BL; evaporators 0800CL, 0812CL; with vacuum system and scrubber 0550TK).

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Scrubber 0550TK

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC <sup>A</sup>	7.8 pph <sup>1</sup>	Test Protocol*	EUPOLYMERS	GC 13	R 336.1225
2. VOC <sup>A</sup>	13.5 tpy	12-month rolling time period as determined at the end of each calendar month	EUPOLYMER	SC VI.2	R 336.1702(a)
3. Formaldehyde	0.1 tpy <sup>1</sup>	12-month rolling time period as determined at the end of each calendar month	EUPOLYMERS	SC VI.2	R 336.1225
4. Hydrogen Chloride	0.1 pph <sup>1</sup>	Test Protocol*	EUPOLYMERS	GC 13	R 336.1225

\*Test protocol shall specify averaging time

<sup>A</sup> Siloxanes are not classified as a VOC or HAP

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The batches run in EUPOLYMERS shall not exceed a maximum of 750 per month. **(R 336.1205(1), R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the reactor-mixers unless the vacuum system is installed, maintained, and operated in a satisfactory manner, except when making products which are blended at atmospheric pressure. **(R 336.1702, R 336.1901, R 336.1910)**
2. The permittee shall not operate EUPOLYMERS unless the ejector/venture gas scrubber jet and the sodium hypochlorite scrubber tank are installed, maintained, and operated in a satisfactory manner. **(R 336.1702, R 336.1901, R 336.1910)**

**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 keep, in a satisfactory manner, monthly records of the number of batches run for EUPOLYMERS, as required by SC III.1. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a))**
2. The permittee shall keep, in a satisfactory manner, 12-month time period records of VOC and Formaldehyde emission calculations for EUPOLYMERS, as required by SC I.2. and I.3. Individual process batch records will be used to demonstrate compliance on a monthly basis with emission calculations performed once per year. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1), 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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVPOLYMERS	12 <sup>1</sup>	28 <sup>1</sup>	R 336.1225
2. SVPOLYMERS1	2 <sup>1</sup>	1 <sup>1</sup>	R 336.1901
3. SVPOLYMERS2	3 <sup>1</sup>	3 <sup>1</sup>	R 336.1901

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**EUHCR  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Heat curable rubber production area. Area for production of silicone fluids, emulsions, sealants, and rubbers with baghouse control and a two scrubber in-series scrubbing system, 073101SC and 073102SC.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Baghouse  
Filter condensers  
Two scrubbers in series (073101SC and 073102SC)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	0.16 pph <sup>1</sup>	Test Protocol*	EUHCR	GC 13	R 336.1225
2. VOC	0.7 tpy	12-month rolling time period as determined at the end of each calendar month.	EUHCR	SC VI.2 SC VI.3	R 336.1702(a)
3. Siloxanes <sup>A</sup>	49 tpy <sup>1</sup>	12-month rolling time period as determined at the end of each calendar month	EUHCR	SC VI.2 SC VI.3	R 336.1225
4. Ammonia	1.6 pph <sup>1</sup>	Test Protocol*	EUHCR	GC 13	R 336.1225
5. PM	0.02 lb per 1000 lbs of exhaust gases, calculated on a dry gas basis.	Test Protocol*	EUHCR	GC 13	R 336.1331
6. PM	0.9 pph	Test Protocol*	EUHCR	GC 13	R 336.1331
*Test protocol shall specify averaging time <sup>A</sup> Siloxanes are not classified as a VOC or HAP					

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall maintain and operate the EUHCR control devices (baghouse filters, scrubbers, and filter-condensers) according to the procedures outlined in a preventative maintenance plan, approved by the AQD District Supervisor. **(R 336.1910, R 336.1911)**
2. The batches run in EUHCR shall not exceed a maximum of 2500 per month. **(R 336.1205(1), R 336.1225, R 336.1702(a))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUHCR bag dump stations (powder changing stations) unless the baghouse filters are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1901, R 336.1910)**
2. The permittee shall not operate EUHCR mixers 0710MX, 0711MX, 0712MX, 0713MX, 0719MX, nor 0744MX while emitting ammonia, unless the scrubbers (in series) are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes, but is not limited to, maintaining a minimum scrubbing liquid flow rate of 20 gallons per minute. **(R 336.1901, R 336.1910)**
3. The permittee shall not operate any EUHCR mixers (with the exception of 0704MX, 0706MX, and 0708MX) unless the filter-condensers are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1702, R 336.1901, R 336.1910)**
4. The permittee shall equip and maintain EUHCR scrubber systems 073101SC and 073102SC with feedback mechanical shutdown or flow alarm system to alert of scrubber failure. **(R 336.1702, R 336.1901, R 336.1910)**
5. The permittee shall equip and maintain each 073101SC and 073102SC scrubber with a pH monitor and scrubbing liquid flow rate indicator. **(R 336.1225, R 336.1901, R 336.1910)**

#### **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 conduct all necessary maintenance and make all necessary attempts to keep all components of the EUHCR control devices maintained and operating in a satisfactory manner at all times. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to the EUHCR control devices. Maintenance records for the devices shall be consistent with the approved preventative maintenance program. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**
2. The permittee shall keep, in a satisfactory manner, monthly records of the number of batches run for EUHCR, as required by SC III.2. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a))**
3. The permittee shall keep, in a satisfactory manner, 12-month time period records of VOC and Siloxanes emission calculations for EUHCR, as required by SC I.2 and I.3. Individual process batch records will be used to demonstrate compliance on a monthly basis with emission calculations performed once per year. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a))**
4. The permittee shall keep, in a satisfactory manner, per shift records of the scrubbing liquid flow rate for 073101SC and 073102SC, as required by SC IV.2 and IV.5. All records shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1901, R 336.1910)**

#### **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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVHCR1	8	27.5	40 CFR 52.21(c) and (d)
2. SVHCR2	4	21.5	40 CFR 52.21(c) and (d)
3. SVHCR3	4	15	40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**EU0953RX**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Jacketed 1000-gallon reactor/mixer with ancillary equipment to charge solids and liquids and a plate and frame heat exchanger to cool product. Emission controls include a dust collector and a condenser.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Dust collector  
Condenser

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	115 pounds per month	Calendar month	EU0953RX	SC VI.3	R 336.1702(a)

**II. MATERIAL LIMIT(S)**

1. The permittee shall not process more than 770 batches in EU0953RX per year, based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall charge solid materials to the reactor only in a manner that mixes them with liquids before the mixed stream enters the reactor. **(R 336.1224, R 336.1225, R 336.1331)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the Ystral mixer in EU0953RX unless the dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall not operate EU0953RX unless the condenser is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the condenser includes maintaining a coolant outlet target temperature of 40 degrees Fahrenheit during process operation. Upon detection of a coolant outlet temperature of 45 degrees or higher, the permittee shall take the following actions:
  - a) Temperature 45 degrees or higher, but less than 50 degrees: take actions to reduce the coolant outlet temperature to 45 degrees or less.
  - b) Temperature 50 degrees or higher: stop process operation as quickly as possible, consistent with safe operation.  
**(R 336.1225, R 336.1702(a), R 336.1910)**
3. The permittee shall equip and maintain the condenser with a device to monitor the outlet coolant temperature.  
**(R 336.1910)**

**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 records and calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
2. The permittee shall keep a record of the number of batches processed in EU0953RX during each calendar month and during the 12-month rolling time period ending that calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall calculate the VOC emission rate from EU0953RX monthly, using a method acceptable to the AQD District Supervisor. Emission calculations for each batch shall be based on the maximum coolant outlet temperature observed during the batch. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1702(a))**
4. The permittee shall monitor and record, in a satisfactory manner, the coolant outlet temperature from the condenser once during each batch while fluids are being charged to the reactor. **(R 336.1910)**
5. During processing of each EU0953RX batch that uses the Ystral mixer, the permittee shall conduct a visible emissions check of the Ystral mixer during charging of the mixer. The visible emission check shall be conducted in accordance with Method 22 or an alternate method approved by the AQD District Supervisor. If a check reveals any visible emissions, the permittee shall inspect the mixer and dust collector and perform any maintenance required to eliminate visible emissions. **(R 336.1910)**
6. The permittee shall keep a record of each visible emissions check required by SC VI.5. The record shall include the following:
  - a. The date and time of the visible emissions check.
  - b. Whether visible emissions were observed from the mixer or the dust collector.
  - c. The name of the person checking for visible emissions.
  - d. If visible emissions were observed, the name of the person inspecting the mixer and dust collector and the findings of the inspection.
  - e. If visible emissions were observed, the name of the person conducting maintenance and the maintenance activities taken to eliminate visible emissions.

The permittee shall keep the record on file at the facility and make it available to the Department upon request. **(R 336.1910)**

7. The permittee shall keep a record of actions taken when the condenser coolant outlet temperature reaches 45 degrees Fahrenheit or higher. The record shall be in a format acceptable to the AQD District Supervisor, and shall contain the following information for each such occurrence:
  - a. Date and time a coolant outlet temperature of 45 degrees or higher temperature was observed.
  - b. Actions taken to restore coolant outlet temperature to less than 45 degrees.
  - c. If process shutdown is necessary, the date and time shutdown was initiated.
  - d. The initials of the person supervising the corrective actions or shutdown.**(R 336.1910)**

## **VII. REPORTING**

1. Within 30 days after commencement of trial operation of EU0953RX, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the event. **(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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV0953RX <sup>A</sup>	4	30	R 336.1225, 40 CFR 52.21(c)&(d)
<sup>A</sup> This vent is not required to discharge unobstructed vertically upwards.			

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**EU0902RX  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

1000-gallon reactor with condenser for emissions control.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Condenser using ambient temperature coolant

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	190 pounds per month	Calendar month	EU0902RX	SC VI.3	R 336.1702(a)

**II. MATERIAL LIMIT(S)**

1. The permittee shall not process more than 400 batches in EU0902RX per year, based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU0902RX unless the condenser is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the condenser includes maintaining a coolant outlet temperature no higher than 100 degrees Fahrenheit during process operation. **(R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall equip and maintain the condenser with a device to monitor the outlet coolant temperature. **(R 336.1910)**

**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 records and calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(a))**

2. The permittee shall keep a record of the number of batches processed in EU0902RX during each calendar month and during the 12-month rolling time period ending that calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall calculate the VOC emission rate from EU0902RX monthly, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1702(a))**
4. The permittee shall monitor and record, in a satisfactory manner, the coolant outlet temperature from the condenser once during each batch while fluids are being charged to the reactor or during a heat-up step. The record for each batch shall include the coolant outlet temperature and the process activity (such as charging fluids or heat-up) when the temperature was recorded. **(R 336.1910)**

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV0902RX	2	20	R 336.1225, 40 CFR 52.21(c)&(d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**EU0915RX  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

2600-gallon reactor (with 2100-gallon working capacity) and quench tank with condenser for emissions control.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Condenser using chilled coolant

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	225 pounds per month	Calendar month	EU0915RX	SC VI.3	R 336.1702(a)

**II. MATERIAL LIMIT(S)**

1. The permittee shall not process more than 700 batches in EU0915RX per year, based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU0915RX unless the condenser is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the condenser includes maintaining a coolant outlet temperature no higher than 50 degrees Fahrenheit during process operation. **(R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall equip and maintain the condenser with a device to monitor the outlet coolant temperature. **(R 336.1910)**

**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 records and calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(a))**
2. The permittee shall keep a record of the number of batches processed in EU0915RX during each calendar month and during the 12-month rolling time period ending that calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

3. The permittee shall calculate the VOC emission rate from EU0915RX monthly, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1702(a))**
4. The permittee shall monitor and record, in a satisfactory manner, the coolant outlet temperature from the condenser once during each batch while fluids are being charged to the reactor or during a heat-up step. The record for each batch shall include the coolant outlet temperature and the process activity (such as charging fluids or heat-up) when the temperature was recorded. **(R 336.1910)**

## **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by Permit to Install No. 155-05C, 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 EU0915RX. **(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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV0915RX	4	20	R 336.1225, 40 CFR 52.21(c)&(d)

## **IX. OTHER REQUIREMENT(S)**

NA

### **Footnotes:**

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

## 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)

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	60 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(1)
2. Each individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(1)
3. Total HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(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 monitor, in a satisfactory manner, the process throughput rates for all FGFACILITY process equipment (for means of calculating emissions) on a continuous basis. **(R 336.1205(1))**
2. The permittee shall keep, in a satisfactory manner, 12-month rolling time period records of VOC, Individual HAP, and Total HAPs emission calculations for FGFACILITY, as required by SC I.1., I.2. and I.3. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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