

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

March 25, 2019

**PERMIT TO INSTALL
164-18**

**ISSUED TO
AKWEL Cadillac USA, Inc.**

**LOCATED AT
603 West Seventh Street
Cadillac, Michigan**

**IN THE COUNTY OF
Wexford**

**STATE REGISTRATION NUMBER
A9365**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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: March 7, 2019	
DATE PERMIT TO INSTALL APPROVED: March 25, 2019	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	Michigan Department of Environmental Quality
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
MDEQ	Michigan Department of Environmental Quality
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 Environmental Quality, 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 Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

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

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-TURBO102	Turbo hose manufacturing extruder line	TBD	FGLINES
EU-TURBO103	Turbo hose manufacturing extruder line	TBD	FGLINES
EULINE102	Rubber extrusion line	5/29/98	FGLINES
EULINE103	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE104	Rubber extrusion line	5/29/98	FGLINES
EULINE107	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE109	Turbo hose manufacturing extruder line	6/1/17	FGLINES
EULINE110	Rubber extrusion line	5/29/98	FGLINES
EULINE111	Rubber extrusion line	5/29/98	FGLINES
EULINE148	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE151	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE152	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE153	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EULINE154	Rubber extrusion line with solvent bath	5/26/98 3/9/11	FGLINES FGSOLVENT
EULINE156	Rubber extrusion line	5/29/98	FGLINES
EULINE161	Rubber extrusion line with solvent bath	10/2/02	FGLINES FGSOLVENT
EULINE167	Rubber extrusion line with solvent bath	5/29/98	FGLINES FGSOLVENT
EU-IM181	Injection molding extruder	--	FGIM
EU-IM182	Injection molding extruder	--	FGIM
EU-IM183	Injection molding extruder	--	FGIM
EU-IM184	Injection molding extruder	--	FGIM
EU-IM186	Injection molding extruder	--	FGIM
EUCUREOVEN01	A natural gas fired post cure oven used for vulcanizing molded and extruded rubber products.	1/30/2012	FGCUREOVEN
EUCUREOVEN02	An electric post cure oven used for vulcanizing molded and extruded rubber products.	1/30/2012	FGCUREOVENS
EUCUREOVEN03	A natural gas fired post cure oven with cooling booth used for vulcanizing molded and extruded rubber products.	TBD	FGCUREOVENS
EUCUREOVEN04	A natural gas fired post cure oven with cooling booth used for vulcanizing molded and extruded rubber products.	TDB	FGCUREOVENS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUCUREOVEN05	A natural gas fired post cure oven with cooling booth used for vulcanizing molded and extruded rubber products.	TBD	FGCUREOVENS
EUCUREOVEN06	A natural gas fired post cure oven with cooling booth used for vulcanizing molded and extruded rubber products.	TBD	FGCUREOVENS
EUCUREOVEN07	A natural gas fired post cure oven with cooling booth used for vulcanizing molded and extruded rubber products.	TBD	FGCUREOVENS

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLINES	Extrusion line machines	EULINE102, EULINE103, EULINE104, EULINE107, EULINE109, EULINE110, EULINE111, EULINE148, EULINE151, EULINE152, EULINE153, EULINE154, EULINE156, EULINE161, EULINE167, EU-TURBO102, EU-TURBO103
FGSOLVENT	Solvent baths used on the extrusion lines	EULINE103, EULINE107, EULINE148, EULINE151, EULINE152, EULINE153, EULINE154, EULINE161, EULINE167
FGIM	Injection mold extruders	EU-IM181, EU-IM182, EU-IM183, EU-IM184, EU-IM186
FGCUREOVENS	Six natural gas fired and one electric post cure ovens used for vulcanizing molded and extruded rubber products.	EUCUREOVEN01 EUCUREOVEN02 EUCUREOVEN03 EUCUREOVEN04 EUCUREOVEN05 EUCUREOVEN06 EUCUREOVEN07

FGLINES FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Extrusion line machines

Emission Unit: EULINE102, EULINE103, EULINE104, EULINE107, EULINE109, EULINE110, EULINE111, EULINE148, EULINE151, EULINE152, EULINE153, EULINE154, EULINE156, EULINE161, EULINE167, EU-TURBO102, EU-TURBO103

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	32.1 tpy	12-month rolling time period as determined at the end of each calendar month	Extrusion emissions within FGLINES	SC VI.1	R 336.1205(1)(a), R 336.1225, R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The materials used in EU-TURBO102 and EU-TURBO103 shall not contain any organic solvents. **(R 336.1205(1)(a), R 336.1225)**
2. The permittee shall process only the following uncured rubber materials in FGLINES:
Epichlorohydrin (ECO)
Hypalon
Nitrile (NBR)
Fluoroelastomer (VAMAC/FKM)
Fluoroelastomer THV
Chlorinated Polyethylene (CPE)
EPDM
Neoprene
(R 336.1205(1)(a), R 336.1225)

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 maintain a monthly record, acceptable to the AQD District Supervisor, of the following information: **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**
 - a. Daily hours of operation of FGLINES (per emission unit) when operating.
 - b. Total pounds of each rubber compound processed (per month and 12-month rolling time period).
 - c. VOC emission calculations determining the mass emission rate from the process. Annual emission rates to be calculated on a 12-month rolling time period as determined at the end of each calendar month. The following emission factors shall be used to do the calculations:

Rubber/plastic Type	Extrusion Emission Factor (lb VOC/lb Rubber)
EPDM (#8)	7.00E-05
Neoprene (#11)	7.86E-06
Nitrile NBR (#14)	5.39E-04
Fluoroelastomer VAMAC/FKM and THV	4.58E-03
Hypalon (#15)	1.32E-02
CPE (#21)	9.01E-03
ECO (#23)	1.75E-03

2. All records shall be made available to the Department upon request. **(R 336.1201(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall not discharge the emissions from FGLINES directly into the atmosphere. **(R 336.1205(3), R 336.1225)**

Footnotes:

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

FGSOLVENT FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Solvent baths used on the extrusion lines

Emission Unit: EULINE103, EULINE107, EULINE148, EULINE151, EULINE152, EULINE153, EULINE154, EULINE161, EULINE167

POLLUTION CONTROL EQUIPMENT

Catalytic Oxidizer controlling emissions from the surface preparation/adhesion promoter applicators.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Toluene	19.6 tpy	12-month rolling time period as determined at the end of each calendar month	FGSOLVENT	SC VI.2	R 336.1205(1)(a), R 336.1225, R 336.1702(a)
2. Cyclohexanone	4.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGSOLVENT	SC VI.2	R 336.1205(1)(a), R 336.1225, R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The permittee shall only use toluene and cyclohexanone in FGSOLVENT for adhesion promoters/solvents. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the surface preparation adhesion promoter/solvent applicator portions of FGSOLVENT unless the catalytic oxidizer is installed, maintained and operated in a satisfactory manner. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**
2. Satisfactory operation of the catalytic oxidizer includes a minimum VOC destruction efficiency of 95 percent (by weight), a minimum catalyst bed inlet temperature of 650°F, and a maximum space velocity of 15,000 inverse hours. **(R 336.1205(1)(a), R 336.1225, R 336.1702, R 336.1910)**
3. The permittee shall not operate the catalytic oxidizer unless the continuous temperature monitoring and recording system is installed and operating properly. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device at the inlet to the catalyst bed of the catalytic oxidizer to monitor and record the inlet temperature on a continuous basis. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of capture efficiency per emission unit within FGSOLVENT and destruction efficiency from the catalytic oxidizer, by testing at owner's expense, in accordance with Department requirements, will be required once every 5 years from the previous test. Staggered testing of different emission units may be completed over the 5 years with all emission units tested at the end of the 5 years, unless an alternative schedule is approved.

Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall test and repair/replace the catalyst in the catalytic oxidizer as per manufacturer's recommendations. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), R 336.1910)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each adhesion promoter/solvent, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records shall be made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a monthly record, acceptable to the AQD District Supervisor, of the following information per emission unit for FGSOLVENT:
 - a. Daily hours of operation of FGSOLVENT when operating.
 - b. Pounds or gallons of each cyclohexanone and toluene adhesive used.
 - c. Cyclohexanone and toluene content, in weight percent or pounds per gallon, of each adhesive used.
 - d. Total (adhesive and rubber/plastic) toluene and cyclohexanone mass emission calculations determining monthly and annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month. The capture and destruction efficiency determined during the most recent stack test shall be used.**(R 336.1205(1)(a), 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. SV-OXIDIZER	20 ¹	24 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGIM FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Injection mold extruders

Emission Unit: EU-IM181, EU-IM182, EU-IM183, EU-IM184, EU-IM186

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	4.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGIM	SC VI.1	R 336.1205(1)(a), R 336.1225, R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The permittee shall process only the following uncured rubber materials in FGIM:

- Epichlorohydrin (ECO)
- Nitrile (NBR)
- Fluoroelastomer (VAMAC/FKM)
- Fluoroelastomer THV
- Chlorinated Polyethylene (CPE)
- EPDM
- Neoprene
- (R 336.1205(1)(a), R 336.1225)**

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 maintain a monthly record, acceptable to the AQD District Supervisor, of the following information: **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**
 - a. Hours of operation of FGIM (each emission unit).
 - b. Total pounds of each rubber compound processed (per month and 12-month rolling time period).
 - c. VOC emission calculations determining the mass emission rate from the process. Annual emission rates to be calculated on a 12-month rolling time period as determined at the end of each calendar month. The following emission factors shall be used to do the calculations:

Rubber/plastic Type	Extrusion Emission Factor (lb VOC/lb Rubber)
EPDM (#8)	8.25E-04
Neoprene (#11)	1.84E-03
Nitrile NBR (#14)	1.29E-02
Fluoroelastomer VAMAC/FKM and THV	4.58E-03
CPE (#21)	8.78E-03
ECO (#23)	1.72E-03

2. All records shall be made available to the Department upon request. **(R 336.1201(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

**FGCUREOVENS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Six natural gas fired and one electric post cure ovens used for vulcanizing molded and extruded rubber products.

Emission Unit: EUCUREOVEN01, EUCUREOVEN02, EUCUREOVEN03, EUCUREOVEN04, EUCUREOVEN05, EUCUREOVEN06, EUCUREOVEN07

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGCUREOVENS	SC VI.1	R 336.1702(a)
2. Aggregate HAPs	2.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGCUREOVENS	SC VI.1	R 336.1205(3)

II. MATERIAL LIMIT(S)

1. The permittee shall process only the following uncured rubber materials in FGCUREOVENS:
Epichlorohydrin (ECO)
Chlorinated Polyethylene (CPE)
Acrylonitrile Butadiene Rubber (NBR)
Vamac/ Ethylene Acrylic Elastomer (AEM)
Fluoroelastomer (FKM)
Neoprene
(R 336.1201(3), R 336.1205)

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 maintain a monthly record, acceptable to the AQD District Supervisor, of the following information: **(R 336.1205(3), R 336.1225, R 336.1702(a))**
 - a. Hours of operation of the post curing ovens.
 - b. The total pounds of each rubber compound processed (per month and 12-month rolling time period).
 - c. VOC emission calculations determining the mass emission rate from the process. Annual emission rates to be calculated on a 12-month rolling time period as determined at the end of each calendar month. The following emission factors shall be used to do the calculations:

Rubber Type	Emission Factor (lb VOC/lb Rubber)
ECO (#23)	1.72e-03
CPE (#21)	8.78e-03
Nitrile NBR (#14)	1.29e-02
Ethylene Acrylic Elastomer (AEM) and Fluoroelastomer (FKM)	4.58e-03
Neoprene (#11)	1.84e-03

- d. Aggregate HAPs emission calculations determining the mass emission rate from the process. Annual emission rates to be calculated on a 12-month rolling time period as determined at the end of each calendar month. The following emission factors shall be used to do the calculations:

Rubber Type	Emission Factor (lb HAPs/lb Rubber)
ECO (#23)	7.31e-04
CPE (#21)	2.77e-04
Nitrile NBR (#14)	1.04e-03
Fluoroelastomer VAMAC/FKM and THV	1.16e-04
Neoprene (#11)	2.81e-04

2. All records shall be made available to the Department upon request. **(R 336.1201(3))**

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. SVCUREOVEN01	8 ¹	25 ¹	R 336.1225
2. SVCUREOVEN01A	8 ¹	25 ¹	R 336.1225
3. SVCUREOVEN02	8 ¹	20 ¹	R 336.1225
4. SVCUREOVEN03A	8 ¹	25 ¹	R 336.1225
5. SVCUREOVEN03B	10 ¹	25 ¹	R 336.1225
6. SVCUREOVEN04A	8 ¹	25 ¹	R 336.1225
7. SVCUREOVEN04B	10 ¹	25 ¹	R 336.1225
8. SVCUREOVEN05A	8 ¹	25 ¹	R 336.1225
9. SVCUREOVEN05B	10 ¹	25 ¹	R 336.1225
10. SVCUREOVEN06A	8 ¹	25 ¹	R 336.1225
11. SVCUREOVEN06B	10 ¹	25 ¹	R 336.1225

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
12. SVCUREOVEN07A	8 ¹	25 ¹	R 336.1225
13. SVCUREOVEN07B	10 ¹	25 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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