

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION**

February 26, 2010

PERMIT TO INSTALL
224-09

ISSUED TO
General Motors – Orion Assembly Plant

LOCATED AT
4555 Giddings Road
Orion, Michigan

IN THE COUNTY OF
Oakland

STATE REGISTRATION NUMBER
B7227

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Natural Resources and Environment. 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:

January 6, 2010

DATE PERMIT TO INSTALL APPROVED:

February 26, 2010

SIGNATURE:

G. Vinson Hellwig, Chief

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDNRE	Michigan Department of Natural Resources and Environment	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

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 Natural Resources and Environment, P.O. Box 30260, Lansing, Michigan 48909, 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 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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Natural Resources and Environment. **(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 R 336.1301, 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 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	<i>Emission Unit Description</i>	Stack Identification
EU-PRETREATMENT	Pretreatment of vehicle surface to prepare it for E-coat.	NA
EU-ECOAT	Prime coating operations are performed in an electrodeposition tank followed by a curing oven, a cooling zone, and a dry filter scuff booth.	SV-1 SV-3 SV-4 SV-14
EU-SEALERS	Various sealer materials application stations followed by a curing oven.	SV-1 SV-5 SV-6 SV-11 SV-15
EU-SOUND DAMP	An acoustical damper product that will be applied using robotic spray equipment. There are no VOC emissions, PM emissions nor any stacks associated with this process.	NA
EU-THREE WET	Two parallel coating processes each consisting of an automatic basecoat 1 booth, a heated flash-off area, an automatic basecoat 2 booth, a heated flash-off area, an automatic clearcoat booth, a curing oven, a cooling zone, and a finesse booth.	SV-1 SV-2 SV-7 SV-8 SV-9 SV-10 SV-12 SV-13 SV-16 SV-17
EU-GLASS INSTALL	Materials used to bond the windshield and rear windows to the vehicle.	NA
EU-FINAL REPAIR	Dry filter booths used for repair paint application.	SV-20 SV-21 SV-22 SV-23 SV-24 SV-25 SV-26
EU-PURGE&CLEAN	Solvents used for cleanup and purge of facility paint systems. A solvent recovery system is in place to recover solvents used in the purging of automatic spray guns. Also included is a manual body wipe.	NA
EU-VEHICLE FLUID FILL	Each new vehicle will be filled with various fluids such as power steering fluid, antifreeze, transmission fluid, engine oil, windshield washer fluid, refrigerant, and fuel. All vehicles being filled with fuel shall be equipped with an Onboard Re-Fueling Vapor Recovery System (ORVR) to control VOC emissions.	SV-19

Emission Unit ID	<i>Emission Unit Description</i>	Stack Identification
EU-NATURAL GAS	Natural gas burning will take place in the ovens, the paint booth air supply houses, the thermal oxidizer, and miscellaneous support equipment installed under this permit. Note: The facility's boilers and all equipment at the powerhouse are not covered under this permit.	NA
EU-FUEL TANK1	An above ground fuel storage tank equipped with submerged fill pipes and conservation vents. The fuel storage tank is filled using a vapor balance system.	NA
EU-FUEL TANK2	An above ground fuel storage tank equipped with submerged fill pipes and conservation vents. The fuel storage tank is filled using a vapor balance system.	NA
EU-WWF TANK	An above ground windshield washer fluid (methanol) storage tank equipped with submerged fill pipes and conservation vents.	NA
EU-AF TANK	An above ground antifreeze storage tank equipped with submerged fill pipes and conservation vents.	NA
EU-PSF TANK	An above ground power steering fluid storage tank equipped with submerged fill pipes and conservation vents.	NA
EU-TF TANK	An above ground transmission fluid storage tank equipped with submerged fill pipes and conservation vents.	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 336.1290.		

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FG-TANKS	Any existing (placed into operation before 7/1/79), new (placed into operation on or after 7/1/79) or modified storage tank, including those that are exempt from the requirements of R336.1201 pursuant to R336.1284.	NA
FG-FACILITY	This flexible group covers equipment used for automotive assembly and painting operations for the Orion Assembly Plant.	NA
FG-CONTROLS	A single regenerative thermal oxidizers used for control of VOC emissions from the clearcoat paint spray booths, the flash-off areas, and the curing ovens.	NA
FG-MACT	EU-ECOAT, EU-SEALERS, EU-THREE WET, EU-GLASS INSTALL, EU-FINAL REPAIR.	NA
FG-OLDFACILITY	EU-WWF TANK	NA

<i>EU-PRETREATMENT</i> EMISSION UNIT CONDITIONS
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DESCRIPTION

Pretreatment of vehicle surface to prepare it for E-coat.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The heat input capacity of each hot water heater portion of EU-PRETREATMENT shall not exceed a maximum of 99.9 MM BTU per hour. **(40 CFR Part 60 Subpart Dc)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

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:

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc, as they apply to each hot water heater portion of EU-PRETREATMENT. **(40 CFR Part 60 Subparts A & Dc)**

EU-ECOAT
EMISSION UNIT CONDITIONS

DESCRIPTION

Prime coating operations are performed in an electrodeposition tank followed by a curing oven, a cooling zone, and a dry filter scuff booth.

Flexible Group ID: FG-FACILITY, FG-CONTROLS, FG-MACT

POLLUTION CONTROL EQUIPMENT

Regenerative thermal oxidizer control of VOC emissions from the electrodeposition tank and the curing oven.

Dry filter particulate controls on the scuff booth portion of EU-ECOAT.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate the electrodeposition tank, curing oven, and cooling zone portions of EU-ECOAT unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of regenerative thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average. (R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)
- The permittee shall not operate the scuff booth portion of EU-ECOAT unless the dry filter particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the dry filter particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2. (R 336.1301, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The VOC content, water content and density of the resin, pigment and additives, as added to the ECOAT tank, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer’s formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the District Supervisor, the VOC content, water content and density of the resin, pigment and additives as added to the ECOAT tank shall be verified by testing using federal Reference Test Method 24. **(R 336.702(a), R 336.2040, R 336.2041)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-1 (RTO Stack)	72.0	83.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SV-3 (ELPO Cooler 1)	60.0	62.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SV-4 (ELPO Cooler 2)	60.0	62.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
4. SV-14 (ELPO Oven Radiant Tube)	48.0	62.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

5. The exhaust gases from the scuff booth portion of EU-ECOAT shall not be discharged to the ambient air at any time. **(R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENT(S)

NA

EU-SEALERS
EMISSION UNIT CONDITIONS

DESCRIPTION

Various sealer materials application stations followed by a curing oven.

Flexible Group ID: FG-FACILITY, FG-CONTROLS, FG-MACT

POLLUTION CONTROL EQUIPMENT

Regenerative thermal oxidizer control of VOC emissions from the curing oven.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate the curing oven portion of EU-SEALERS unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of regenerative thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- The VOC content of each sealer and adhesive shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Testing shall be conducted at representative time(s) and temperature(s) used to cure the related sealer or material in practice as provided by ASTM D2369-98, 1.4 and Note 3. Alternatively, the VOC content may be determined from manufacturer’s formulation data. If the tested and the formulation values should differ, the test results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content of each sealer and adhesive shall be verified by testing. **(R 336.1220(a), R 336.2040, R 336.2041)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-1 (RTO Stack)	72.0	83.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SV-5 (Sealer Cooler 1)	60.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SV-6 (Sealer Cooler 2)	60.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
4. SV-11 (Sealer Canopy)	18.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
5. SV-15 (Sealer Oven Radiant Tube)	42.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

NA

EU-SOUND DAMP
EMISSION UNIT CONDITIONS

DESCRIPTION

An acoustical damper product that will be applied using robotic spray equipment. There are no VOC emissions, PM emissions nor any stacks associated with this process.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

1. The sound dampening materials used in EU-SOUND DAMP shall not contain any VOCs. **(R 336.1225, R 336.1702(a), R 336.1901)**

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 336.1213(3)(b)(ii))**

1. The VOC content, water content and density of any sound dampening material as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24. **(R 336.702(a), R 336.2040, R 336.2041)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

1. The exhaust gases from EU-SOUND DAMP shall not be discharged to the ambient air at any time.
(R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

IX. OTHER REQUIREMENT(S)

NA

EU-THREE WET
EMISSION UNIT CONDITIONS

DESCRIPTION

Two parallel coating processes each consisting of an automatic basecoat 1 booth, a heated flash-off area, an automatic basecoat 2 booth, a heated flash-off area, an automatic clearcoat booth, a curing oven, a cooling zone, and a finesse booth.

Flexible Group ID: FG-FACILITY, FG-CONTROLS, FG-MACT

POLLUTION CONTROL EQUIPMENT

Regenerative thermal oxidizer control of VOC emissions from the two clearcoat booths, the four heated flash-off areas, and the two curing ovens.

Water wash particulate controls on the spray booth portions of EU-THREE WET.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the two clearcoat booths, the four heated flash-off areas, and the two curing ovens portions of EU-THREE WET unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**
2. The permittee shall not operate the spray booth portions of EU-THREE WET unless the water wash particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the water wash particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2. **(R 336.1301, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content, water content and density of any coating or material as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer’s formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24. (R 336.1702(a), R 336.2040, R 336.2041)

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-1 (RTO Stack)	72.0	83.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SV-2 (Main Paint Stack)	132.0	143.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SV-7 (Topcoat Cooler 1)	66.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
4. SV-8 (Topcoat Cooler 2)	66.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
5. SV-9 (Topcoat Cooler 3)	66.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
6. SV-10 (Topcoat Cooler 4)	66.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
7. SV-12 (Topcoat Canopy 1)	18.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
8. SV-13 (Topcoat Canopy 2)	18.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
9. SV-16 (Topcoat Oven Radiant Tube 1)	42.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
10. SV-17 (Topcoat Oven Radiant Tube 2)	42.0	51.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

NA

<i>EU-GLASS INSTALL</i> EMISSION UNIT CONDITIONS

DESCRIPTION

Materials used to bond the windshield and rear windows to the vehicle.

Flexible Group ID: FG-FACILITY, FG-MACT

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
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 336.1213(3)(b)(ii))**

1. The VOC content, water content and density of any glass adhesive material as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer’s formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24. **(R 336.702(a), R 336.2040, R 336.2041)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

1. The exhaust gases from EU-GLASS INSTALL shall not be discharged to the ambient air at any time.
(R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

IX. OTHER REQUIREMENT(S)

NA

EU-FINAL REPAIR
EMISSION UNIT CONDITIONS

DESCRIPTION

Dry filter booths used for repair paint application.

Flexible Group ID: FG-FACILITY, FG-MACT

POLLUTION CONTROL EQUIPMENT

Dry filter particulate controls on the spray booth portions of EU-FINAL REPAIR.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate any spray booth portion of EU-FINAL REPAIR unless the dry filter particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the dry filter particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- The VOC content, water content and density of any coating as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer’s formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any sealer and adhesive shall be verified using federal Reference Test Method 24. **(R 336.1702(d), R 336.2040, R 336.2041)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-20 (Final Repair 1)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SV-21 (Final Repair 2)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SV-22 (Final Repair 3)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
4. SV-23 (Final Repair 4)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
5. SV-24 (Final Repair 5)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
6. SV-25 (Final Repair 6)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
7. SV-26 (Final Repair 7)	36.0	61.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

NA

EU-PURGE&CLEAN
EMISSION UNIT CONDITIONS

DESCRIPTION

Solvents used for cleanup and purge of facility paint systems. A solvent recovery system is in place to recover solvents used in the purging of automatic spray guns. Also included is a manual body wipe.

Flexible Group ID: FG-FACILITY, FG-CONTROLS

POLLUTION CONTROL EQUIPMENT

VOC emissions from the clear coat booth portion of EU-THREE WET are controlled by a regenerative thermal oxidizer.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
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 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA			

IX. OTHER REQUIREMENT(S)

NA

EU-VEHICLE FLUID FILL
EMISSION UNIT CONDITIONS

DESCRIPTION

Each new vehicle will be filled with various fluids such as power steering fluid, antifreeze, transmission fluid, engine oil, windshield washer fluid, refrigerant, and fuel. All vehicles being filled with fuel shall be equipped with an Onboard Re-Fueling Vapor Recovery System (ORVR) to control VOC emissions.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT

All vehicles being filled with fuel shall be equipped with an Onboard Re-Fueling Vapor Recovery System (ORVR) to control VOC emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not add fuel to any vehicle without an Onboard Re-fueling Vapor Recovery system unless the VOC emissions from the fuel filling process are controlled by a VOC control device, which achieves a minimum of 95% (by weight) destruction efficiency. **(R 336.1224, R336.1225, R 336.1702(a), R 336.1901, R336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-19 (Vehicle Fuel Fill)	42.0	60.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

NA

EU-NATURAL GAS
EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas burning will take place in the ovens, the paint booth air supply houses, the thermal oxidizer, and miscellaneous support equipment installed under this permit.

Note: The facility’s boilers and all equipment at the powerhouse are not covered under this permit.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
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 336.1213(3)(b)(ii))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA			

IX. OTHER REQUIREMENT(S)

NA

FG-TANKS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any existing (placed into operation before 7/1/79), new (placed into operation on or after 7/1/79) or modified storage tank, including those that are exempt from the requirements of R336.1201 pursuant to R336.1284.

Emission Units: EU-FUEL TANK1, EU-FUEL TANK2, EU-WWF TANK, EU-AF TANK, EU-PSF TANK, EU-TF TANK.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA					

II. MATERIAL LIMIT(S)

1. The permittee shall not have a combined throughput of more than 1,638,000 gallons of gasoline in EU-FUEL TANK1 and EU-FUEL TANK2 together per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1901)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not load or allow the loading of gasoline from a delivery vessel into any existing stationary vessel of more than 2,000 gallons (7.57 cubic meters or 7,571 liters) capacity and which has a throughput of 250,000 or more gallons (946.4 cubic meters or 946,353 liters) per year, unless such stationary vessel is equipped with a permanent submerged fill pipe. **(R 336.1606(1))**
2. The permittee shall not load or allow the loading of gasoline from a delivery vessel into any new stationary vessel of more than 2,000 gallons (7.57 cubic meters or 7,571 liters) capacity unless such stationary vessel is equipped with a permanent submerged fill pipe. **(R 336.1703(1))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep a record of the following for each storage vessel:
 - a) The identification (name, tank #, etc.).
 - b) Location within the plant.
 - c) The capacity of the vessel.
 - d) The date of installation / modification
 - e) The type of material contained in the vessel.
 - f) The true vapor pressure of the material contained in the vessel at actual storage conditions.
 - g) The applicable requirements (Rule 606; Rule 703; NSPS K, Ka or Kb)

2. The permittee shall keep the following information on a monthly basis for EU-FUEL Tank1 and EU-FUEL Tank2 individually and combined:
 - a) A record of the types of fuel stored.
 - b) Gallons of each fuel type added and removed per month and 12-month rolling time period.
 - c) Combined fuel throughput calculations determining the annual throughput in gallons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, 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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA			

IX. OTHER REQUIREMENT(S)

Any existing gasoline tank (placed into operation before 07/01/79) shall comply with the requirements of Rule 606. **(R336.1606)**

Any new gasoline tank (placed into operation on or after 07/01/79) shall comply with the requirements of Rule 703. **(R336.1703)**

Any gasoline tank or volatile organic liquid (VOL) storage tank shall comply with New Source Performance Standards or NSPS (40 CFR, Part 60, Subparts A, K, Ka, Kb) based upon installation or modification date and applicability and designation of affected facility provisions in 40 CFR 60.110, 60.110a, 60.110b. Construction, reconstruction, or modification dates are as follows: **(40 CFR, Part 60, Subparts A, K, Ka, Kb)**

- Subpart K: after June 11, 1973 and prior to May 19,1978

- Subpart Ka: after May 18, 1978 and prior to July 23, 1984
- Subpart Kb: after July 23, 1984.

FG-FACILITY

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group covers equipment used for automotive assembly and painting operations for the Orion Assembly Plant.

Emission Units: All emission units and flexible groups associated with the automotive assembly and painting operations.

POLLUTION CONTROL EQUIPMENT

A single regenerative thermal oxidizer used for control of VOC emissions from the clearcoat paint spray booths, the flash-off areas, and the curing ovens.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	748.5 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1225, R 336.1702(a) R 336.1901
2. VOC	4.6 pounds per job	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1225, R 336.1702(a) R 336.1901
3. PM-10*	20.3 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. NOx	40.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

*This includes PM-10 from all natural gas combustion in the painting operations (including the thermal oxidizer) and the assembly operations, the EU-COAT scuff booth, the paint spray booth portions of EU-THREE WET, EU-FINAL REPAIR, and EU-START-UP/ROLL TEST. This limit does not include the facility's boilers which are covered under another permit.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	800 MM cubic feet per year*	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205(1)(a)

*Total natural gas usage for the painting operations (including the thermal oxidizer) and the assembly operations combined.

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each spray coating booth and scuff booth operation with one of the following: water wash particulate controls, dry filter particulate controls, or equivalent particulate control technology. (R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Within 60 days of achieving the maximum production rate, but not later than 365 days after production of saleable vehicles, verification of the overall transfer efficiency of one representative Basecoat 1 booth, one representative Basecoat 2 booth, and one representative Clearcoat booth, capture efficiency across EU-THREE WET and the curing oven portion of EU-SEALERS, and the destruction efficiency of the regenerative thermal oxidizer, by in-plant testing at owner's expense, in accordance with Department requirements, 40 CFR 51 Appendix M, and the USEPA "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of automobile and Light-Duty Truck Topcoat Operations," December 1988, EPA 450/3-88-018, as amended will be required. No less than 60 days prior to testing, a complete testing plan shall be submitted to the AQD District Supervisor. This testing plan must be approved by the Department prior to testing. A complete report of test results must be submitted to the District Supervisor within 60 days following the testing. (R 336.1225, R 336.1702(a), R336.2001, R336.2003, R336.2004)
2. Within 60 days of achieving the maximum production rate, but not later than 365 days after production of saleable vehicles, the permittee shall verify PM-10 emission rates from the Basecoat 1 and Basecoat 2 portions EU-THREE WET, and a single representative paint spray booth portion of EU-FINAL REPAIR by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep the following records/calculations in a format acceptable to the AQD District Supervisor. The permittee shall compile all required records and complete all required calculations and make them available within 30 days following the end of each calendar month for which records are required to be kept.

- a. For each material used in FG-FACILITY:
 - i. Material identification;
 - ii. Material VOC content; and,
 - iii. Material usage.
- b. Number of jobs each calendar month, where a job is defined as a painted vehicle leaving the assembly line.
- c. Calculations showing the FG-FACILITY monthly and annual mass VOC emission rates, in tons per month and tons per 12-month rolling time period, as determined at the end of each calendar month. Calculations must show the capture and control efficiency of each control device used. Calculations must also include a sample calculation based on the production of a single job and that specifies all measured or assumed process parameters (e.g., transfer, capture and control efficiencies, booth splits, etc.) and VOC emissions due to natural gas combustion. Prior to the initial testing, for each controlled section, the design combined capture and control efficiency may be used. Thereafter, values no greater than the most recently tested values may be used.
- d. Calculations showing the VOC emission rate (lb/job) on a 12-month rolling basis, as determined at the end of each calendar month for the equipment covered by FG-FACILITY.
- e. Calculations showing the PM-10 mass emission rate in tons on a monthly and 12-month rolling time period, as determined at the end of each calendar month for the equipment in FG-FACILITY after the testing required in SC V.1 is completed to develop PM-10 emission factors.
- f. Records of the total natural gas used in FG-FACILITY during each calendar month and 12-month rolling time period, in cubic feet.
- g. Calculations showing the NOx mass emission rate in tons on a monthly and 12-month rolling time period, as determined at the end of each calendar month for the equipment in FG-FACILITY.
- h. Hours of operation for each calendar month and 12-month rolling time period.

All records/calculations shall be kept on file and made available to the Department upon request.

(R 336.1225, R 336.1702(a), R 336.1901)

2. The permittee shall monitor the condition of each particulate control system through weekly visual inspections of each basecoat and clearcoat spraybooth and monthly visual inspections of each final repair spray booth and the E-coat scuff booth. The permittee shall keep records of visual inspections of each exhaust filter, or water wash particulate control system which include the dates and results of the inspections, and the dates and reasons for repairs. All records shall be kept on file and made available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1901, R 336.910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**
3. The permittee shall maintain a record of modifications to any add-on control equipment including any testing and monitoring to demonstrate satisfactory operation upon which compliance with any of the emission limits in FG-FACILITY, SC I.1, 2, 3, and 4 depends. **(R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. For each emission unit (EU) and flexible group (FG) included in this permit, the permittee shall submit to the AQD District Supervisor, in an acceptable format, within 30 days following the end of the quarter in which the data was collected, the actual VOC, PM-10, and NOx emission rates for each limit included in the permit. **(R 336.1205, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**
2. The permittee shall notify the AQD District Supervisor, in writing, of projects authorized by SC IX.3 and 4 at least 30 days prior to initialization of the activity. The notification shall include, at a minimum, a description of the type of project and any changes in testing, monitoring, recordkeeping or other compliance evaluation activities. **(R 336.1201)**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA			

IX. OTHER REQUIREMENT(S)

1. This permit covers automotive assembly and painting operations for the Orion Assembly Plant. Changes to these operations or replacement with a different process type are subject to the requirements of R 336.1201, except as disallowed by R 336.1278 or as allowed by R 336.1279 through R 336.1290 or SC IX.3 or 4. **(R 336.1201)**
2. The Department has determined that compliance with the limits listed in SC I.1 and 2 provides a level of control that is at least equivalent to and not less stringent than the standards in 40 CFR 60.392, *et seq.* and R 336.1610. Accordingly, compliance with the limitations in this permit meets all applicable requirements of 40 CFR Part 60, Subpart MM and R 336.1610. **(R 336.1610, 40 CFR 60, Subpart MM)**
3. This permit authorizes any activities including projects involving physical changes or changes in the method of operation to existing emission units that do not require an increase in the emissions limits or performance levels specified in SC I.1, 2, 3, and 4. Such activities do not require the facility to obtain any federal or state air permits. **(R 336.1201)**
4. This permit authorizes projects involving the installation of new emission units that do not require an increase in the emissions limits or performance levels specified in SC I.1, 2, 3, and 4 under the following conditions:
 - a. As a state-only enforceable requirement, the new emission unit will not result in a meaningful change in the nature or quantity of toxic air contaminants emitted from the stationary source. The permittee must demonstrate to the department by testing or calculations that a meaningful change in the nature or quantity of toxic air contaminants has not occurred. The permittee may devise its own method to perform this demonstration subject to approval by the Department. However, if the permittee demonstrates that all toxic air contaminant emissions from a new emissions unit are within the levels specified in R 336.1226 or R 336.1227, a meaningful change in toxic air contaminants has not occurred;
 - b. The new emissions unit will not be a newly constructed or reconstructed major source of hazardous air pollutants as defined in and subject to 40 C.F.R. §63.2 and §63.5(b)(3), National Emission Standard for Hazardous Air Pollutants; and,
 - c. The installation of the new emissions unit will not cause the violation of any applicable air requirement.

A demonstration that the new installation meets these criteria shall be kept on site for the life of the new emission unit and made available to the Department upon request. The permittee must notify the Department of the installation of the new emission unit. This notification must contain the information specified in R 336.1215(3)(c)(i) through (v). Construction of the new emission unit may commence upon submittal of the notice. **(R 336.1201)**

5. The emission limits and performance levels specified in SC I.1, 2, 3, and 4 may be reviewed and/or adjusted when newly applicable federal requirements or any other requirement that is enforceable as a practical

matter and that the Department, under its State Implementation Plan, may impose on the facility become applicable during the term of the permit that would lower allowable emissions. Adjustments to SC I.1, 2, 3, and 4 will be made through a permit revision as of the effective date of the new applicable requirements and will reflect the impact the new applicable requirements will have on the affected emission units. Initial compliance with the adjusted emission limits and performance levels will be demonstrated over the initial compliance period granted by the newly applicable federal requirement. **(R 336.1225, R 336.1702(a), R 336.1901)**

6. The permittee may, at any time, request that the Department terminate the flexible emission limit provisions of this permit and issue a traditional permit. In the event of such termination, the requirements of this permit shall remain in effect until a new permit is issued. At that time, the permit conditions for any existing emission unit that has not been modified and to which new requirements have not become applicable will revert to those found in the previous permits. For any new or modified emission unit, or any emission unit for which new requirements have become applicable the permit conditions will reflect requirements contemporaneous with the date of installation, modification or new requirement applicability. **(R 336.1702(a), R 336.1225, R 336.1901)**

FG-CONTROLS

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A single regenerative thermal oxidizers used for control of VOC emissions from the clearcoat paint spray booths, the flash-off areas, and the curing ovens.

Emission Units: EU-ECOAT, EU-SEALERS, EU-THREE WET

POLLUTION CONTROL EQUIPMENT

A single regenerative thermal oxidizer used for control of VOC emissions from the clearcoat paint spray booths, the flash-off areas, and the curing ovens.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Upon startup of commercial operations at the facility, the permittee shall develop, maintain and implement an Operation and Maintenance Plan (O & M Plan) for FG-CONTROLS. The O & M Plan shall contain the minimum requirements as outlined in Appendix A. The O & M Plan shall be updated as necessary to reflect changes in equipment and monitoring, to implement corrective actions and to address malfunctions. Changes in the O & M Plan as outlined in Appendix A shall be submitted to the AQD District Supervisor for review and approval. All records and activities associated with the O & M Plan shall be made available to the Department upon request. **(R 336.1220(a), R 336.1901, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install, maintain and operate in a satisfactory manner, a combustion chamber temperature monitoring device for the thermal oxidizers in FG-CONTROLS to monitor and record the temperature on a continuous basis during operation. Temperature data recording shall consist of measurements made at equally spaced intervals at least once every 15 minutes. All records shall be kept on file and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, 40 CFR 60 Subpart MM)**
2. The permittee shall maintain records of maintenance and repair activities. Records shall identify the equipment inspected and the date of the inspection. The permittee shall also record any maintenance activities or corrective actions taken as a result of equipment inspections or due to malfunction. All records shall be kept on file and made available to the Department upon request. **(R 336.1910)**
3. The permittee shall validate or recalibrate each thermocouple associated with the regenerative thermal oxidizer on an annual basis. In lieu of validation or recalibration the thermocouples may be replaced. Records of the validation, recalibration, or replacement shall be kept on file and made available to the Department upon request. **(R 336.1213(3), 40 CFR 64.6(c)(1)(i), (ii), 40 CFR 64.7(e))**
4. For each control device in operation during production, the permittee shall conduct bypass monitoring for each bypass valve such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was open and the length of time the bypass was open shall be kept on file and made available to the Department upon request. **(40 CFR 64.3(a)(2))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA			

IX. OTHER REQUIREMENT(S)

NA

FG-MACT

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Each new, reconstructed, or existing affected source as defined in Title 40 of the Code of Federal Regulations (CFR), Part 63.3082, that is located at a facility which applies topcoat to new automobile or new light duty truck bodies or body parts for new automobiles or new light duty trucks; AND/OR in which you choose to include, pursuant to 40 CFR 63.3082(c), any coating operations which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles; parts intended for use in new automobiles, new light duty trucks or new other motor vehicles; or aftermarket repair or replacement parts for automobiles, light duty trucks or other motor vehicles; and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAPs) except as provided in 63.3081(c). This includes equipment covered by other permits, grandfathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP	0.30 lb per GACS	Calendar month	New – FG-MACT WITH EU-ECOAT	Condition Nos. III.2, V.1 & VI.3	40 CFR 63.3090(a)
2. Organic HAP*	0.50 lbs per GACS	Calendar month	New – FG-MACT	Condition Nos. III.2, V.1 & VI.3	40 CFR 63.3090(b)
3. Organic HAP	0.01 lb per lb of coating	Calendar month	New – EU-SEALERS	Condition Nos. III.2, V.1 & VI.3	40 CFR 63.3090(c) or 63.3091(c)
4. Organic HAP	0.01 lb per lb of coating	Calendar month	New – Deadener Materials	Condition Nos. III.2, V.1 & VI.3	40 CFR 63.3090(d) or 63.3091(d)
<ul style="list-style-type: none"> • FG-MACT includes Guidecoat, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive operations plus all coatings and thinners, except for deadener materials and adhesive and sealers not part of glass bonding systems. • FG-MACT WITH EU-ECOAT also includes Electrocoat operations in addition to all of the operations of FG-MACT. • EU-SEALERS include only adhesives and sealers that are not part of glass bonding systems. 					
* Permittee may choose to comply with this limit if the requirements of Condition No. I.5 is met.					

5. The permittee may choose to comply with either Special Condition numbers I.1 or I.2. The permittee may choose to comply with Special Condition number I.2 only if Electrocoat system (EU-ECOAT) meets either of the following requirements. **(40 CFR 63.3092)**

- a) Each individual material added to the Electrocoat system contains no more than 1.0 percent by weight of any organic HAP and no more than 0.10 percent by weight of any OSHA-defined carcinogenic organic HAP, or
- b) The emissions from all Electrocoat bake ovens are captured and ducted to a CONTROL DEVICE having a minimum destruction or removal efficiency of at least 95 percent (by weight).

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall develop and implement a work practice plan to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by all coating operations for which an emission limit has been established under Special Condition Nos. I.1 through I.4. The work practice plan must specify practices and procedures to ensure that, at a minimum, the following elements are implemented consistent with the requirements of 40 CFR 63.3094: The permittee shall comply with the applicable work practice plans at all times.
 - a) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.
 - b) The risk of spills of organic-HAP containing coatings, thinners, cleaning materials, and waste materials must be minimized.
 - c) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
 - d) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
 - e) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.
 - f) Organic HAP emissions from cleaning and from purging of equipment associated with all coating operations subject to emission limits in Special Conditions Nos. I.1 through I.4 above must be minimized through a plan addressing:
 - i) Vehicle body wipe pursuant to 40 CFR 63.3094(c)(1)(i);
 - ii) Coating line purging pursuant to 40 CFR 63.3094(c)(1)(ii);
 - iii) Coating system flushing pursuant to 40 CFR 63.3094(c)(1)(iii);
 - iv) Cleaning of spray booth grates pursuant to 40 CFR 63.3094(c)(1)(iv);
 - v) Cleaning of spray booth walls pursuant to 40 CFR 63.3094(c)(1)(v);
 - vi) Cleaning of spray booth equipment pursuant to 40 CFR 63.3094(c)(1)(vi);
 - vii) Cleaning of external spray booth areas pursuant to 40 CFR 63.3094(c)(1)(vii);
 - viii) Additional housekeeping measures pursuant to 40 CFR 63.3094(c)(1)(viii).

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the USEPA in accordance with 40 CFR 63.6(g). **(40 CFR 63.3100(c), 40 CFR 63.4493(b) and (c))**

2. The work practice plan shall not become part of the facility’s Renewable Operating Permit (ROP). Revisions to the work practice plan likewise do not represent revisions to the facility’s ROP. Copies of the current work practice plan and any earlier plan developed within the past 5 years are required to be made available for inspection and copying by the AQD upon request. **(40 CFR 63.3094)**
3. For any coating operation(s) for which HAP emission reductions due to the use of add-on control equipment are relied upon to demonstrate compliance with the emission limits in Special Condition Nos. I.1 through I.4 above, the permittee shall meet the operating limits specified in Table 1 of 40 CFR 63, Subpart IIII as identified below. The operating limits in Table 1 apply to the emission capture and add-on control systems on the coating operations. The permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.3167. The operating limits shall be met at all times after they are established, except for periods of startup, shutdown and malfunction. **(40 CFR 63.3093, 40 CFR 63.3100(b) and (d) and Table 1)**

Add-On Control Device	Operating Limit
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Add-On Control Device	Operating Limit
Thermal Oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3167(a).
Catalytic Oxidizer	<p>The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(b); and either:</p> <p>Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.3167(b)(2); or,</p> <p>Develop and implement an inspection and maintenance plan according to 40 CFR 63.3167(b)(4).</p>
Regenerative Carbon Adsorber	<p>The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.3167(c).</p> <p>The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to 40 CFR 63.3167(c).</p>
Concentrators, Including Zeolite Wheels and Rotary Carbon Adsorbers	The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(e).
Emission Capture System that is a Permanent Total Enclosure (PTE), Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	<p>The direction of the air flow at all times must be into the enclosure; and either:</p> <p>The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or,</p> <p>The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of Appendix M to 40 CFR 51.</p>
Emission Capture System that is not a PTE, Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3167(f).

4. The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3). This plan must address the startup, shutdown and corrective actions in the event of a malfunction of any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. **(40 CFR 63.3100(f))**
5. The permittee shall operate and maintain FG-MACT including any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends according to the provisions in 40 CFR 63.6(e)(1)(i). **(40 CFR 63.3100(d))**
6. The permittee shall maintain a log detailing the operation and maintenance of any emission capture system, add-on control device, or continuous parameter monitor upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends. The log shall cover the period between the compliance date specified in 40 CFR 63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in 40 CFR 63.3160. **(40 CFR 63.3100(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.3130, 40 CFR 63.3131)**

1. The permittee shall perform the applicable performance tests and compliance demonstrations in accordance with 40 CFR 63.3150-3152, 40 CFR 63.3160-3161, 40 CFR 63.3163-3168, 40 CFR 63.3170-3171, and 40 CFR 63.3173. **(40 CFR, Part 63, Subpart IIII)**
2. The permittee may rely upon the results of capture, destruction or transfer efficiency tests that have been previously conducted upon written approval from the AQD District Supervisor. Any such previous tests must meet the criteria identified in 40 CFR 63.3160(c)(1) through (3). **(40 CFR 63.3160)**
3. The permittee shall determine the mass fraction of each organic HAP for each material used according to the procedures established under 40 CFR 63.3151(a)(1) through (5). The permittee may use USEPA Method ALT-017 as an alternative for any material used, after demonstrating that its use as an alternative test methodology for that material, has been approved by the USEPA pursuant to the requirements of 40 CFR 63.3151(a)(3) and 40 CFR 63.7. **(40 CFR 63.7, 40 CFR 63.3151)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.3131)**

1. The permittee shall compile all required records and complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the end of the calendar month following each compliance period unless otherwise specified in any monitoring/recordkeeping condition. **(R 336.1213(3))**
2. The permittee shall conduct an initial compliance demonstration for the initial compliance period described in 40 CFR 63.3150-3151, 40 CFR 63.3160-3161, and 40 CFR 63.3170-3171. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.3083 and ends on the last day of the month following the compliance date. If the initial date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. **(40 CFR 63.3150, 40 CFR 63.3160, 40 CFR 63.3170, 40 CFR 63.3083(a) and (b))**
3. The permittee shall install, operate and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements of 40 CFR 63.3168(a). If the capture system contains a bypass line, the permittee shall comply with the requirements of 40 CFR 63.3168(b). **(40 CFR 63.3168)**
4. The permittee shall keep all records as required by 40 CFR 63.3130 in the format and timeframes outlined in 40 CFR 63.3131. **(40 CFR 63.3152(c), 40 CFR 63.3163(j))**
5. The permittee shall maintain, at a minimum, the following records as of the applicable compliance date, for each compliance period:
 - a) A copy of each notification and report that is submitted to comply with 40 CFR, Part 63, Subpart IIII and the documentation supporting each notification and report. **(40 CFR 63.3130(a))**
 - b) A current copy of information provided by materials suppliers or manufactures, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP for each coating, thinner and cleaning material, the density for each coating and thinner, and the volume fraction of coating solids for each coating. **(40 CFR 63.3130(b))**

- c) For each coating or thinner used in FG-MACT or FG-MACT WITH EU-ECOAT, the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids. **(40 CFR 63.3130(c))**
 - d) For each material used in EU-SEALERS, the mass used in each month and the mass organic HAP content. **(40 CFR 63.3130(c))**
 - e) Calculations of the organic HAP emission rate for FG-MACT or FG-MACT WITH EU-ECOAT in pounds per gallon of applied coating solids. If permittee chooses to comply with the option identified in Special Condition I.5.a., a record of the weight fraction of each organic HAP in each material added to the Electrocoat system. These calculations and records must include all raw data, algorithms, and intermediate calculations. If the “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), is used, all data input to this protocol must be recorded. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. **(40 CFR 63.3130(c), 40 CFR 63.3163, 40 CFR 63.3173)**
 - f) Calculation of the average monthly mass organic HAP content in pounds per pound of coating, separately for EU-SEALERS. **(40 CFR 63.3130(c), 40 CFR 63.3152)**
 - g) The name, volume, mass fraction organic HAP content and density of each cleaning material used. **(40 CFR 63.3130(d) - (f))**
 - h) Any additional records pertaining to deviations; startup, shutdown or malfunctions; emission capture systems; performance testing; capture and control efficiency determinations; transfer efficiency determinations; work practice plans; and design and operation of control and monitoring systems for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends, pursuant to 40 CFR 63.3130(g) through (o). **(40 CFR 63.3130(g) – (o))**
 - i) Records pertaining to the design and operation of control and monitoring systems for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends must be maintained on-site for the life of the equipment in a location readily available to plant operators and inspectors. **(40 CFR 63.3130(o))**
6. For any coating operation(s) using add-on controls, the permittee shall demonstrate continuous compliance with the operating limits specified in Table 1 of 40 CFR, Part 63, Subpart IIII for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends pursuant to 40 CFR 63.3163 and 40 CFR 63.3173 using the method(s) described below: **(40 CFR 63.3163, 40 CFR 63.3173 and Table 1)**

Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
Thermal Oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3167(a).	a. Collect the combustion temperature data according to 40 CFR 63.3168(c); b. Reduce the data to 3-hour block averages; and c. Maintain the 3-hour average combustion temperature at or above temperature limit.
Catalytic Oxidizer	The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(b); and either:	a. Collect the temperature data according to 40 CFR 63.3168(c); b. Reduce the data to 3-hour block averages; and

Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
	<p>Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.3167(b)(2); or,</p> <p>Develop and implement an inspection and maintenance plan according to 40 CFR 63.3167(b)(4).</p>	<p>c. Maintain the 3-hour average temperature before the catalyst bed at or above the temperature limit.</p> <p>a. Collect the temperature data according to 40 CFR 63.3168(c);</p> <p>b. Reduce the data to 3-hour block averages; and</p> <p>c. Maintain the 3-hour average temperature difference at or above the temperature difference limit; or</p> <p>a. Maintaining an up-to-date inspection maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by 40 CFR 63.3167(b)(4), take corrective action as soon as practicable consistent with the manufacturer's recommendations.</p>
Regenerative Carbon Adsorber	<p>The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.3167(c).</p> <p>The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to 40 CFR 63.3167(c).</p>	<p>a. Measure the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to 40 CFR 63.3168(d); and</p> <p>b. Maintain the total regeneration desorbing gas mass flow at or above the mass flow limit.</p> <p>a. Measure the temperature of the carbon bed after completing each regeneration and any cooling cycle according to 40 CFR 63.3168(d); and</p> <p>b. Operate the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.</p>
Concentrators, Including Zeolite Wheels and Rotary Carbon Adsorbers	The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(e).	<p>a. Collect the temperature data according to 40 CFR 63.3168(f);</p> <p>b. Reduce the data to 3-hour block averages; and</p> <p>c. Maintain the 3-hour average temperature at or above the temperature limit.</p>

Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
Emission Capture System that is a Permanent Total Enclosure (PTE), Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	<p>The direction of the air flow at all times must be into the enclosure; and either:</p> <p>The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or,</p> <p>The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of Appendix M to 40 CFR 51.</p>	<p>a. Collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.3168(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.3168(g)(2); and</p> <p>b. Maintain the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p>
Emission Capture System that is not a PTE, Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3167(f).	<p>a. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to 40 CFR 63.3168(g);</p> <p>b. Reducing the data to 3-hour block averages; and</p> <p>c. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.</p>

7. Permittee shall monitor or secure the valve or closure mechanism controlling each bypass line for each capture system upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends in a non-bypass mode such that the valve or closure mechanism cannot be opened without creating a record that it was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the following:

- a) Flow control position indicator requirements pursuant to 40 CFR 63.3168(b)(1)(i);
- b) Car-seal or lock-and-key valve closures requirements pursuant to 40 CFR 63.3168(b)(1)(ii);
- c) Valve closure monitoring requirements pursuant to 40 CFR 63.3168(b)(1)(iii);
- d) Automatic shutdown system requirements pursuant to 40 CFR 63.3168(b)(1)(iv).

If any bypass line is opened, a description of why the line was opened and the length of time it remained open must be included in the semi-annual compliance reports required in Special Condition number VII.1. **(40 CFR 63.3168(b))**

VII. REPORTING

1. The permittee shall submit all semiannual compliance reports as required by 40 CFR 63.3120(a). The first time period covered by these reports shall be shortened so as to end on either June 30 or December 31, whichever comes first. These reports shall be due March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30. **(40 CFR 63.3120(a))**
2. The Permittee shall submit applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8(f)(4) and 63.9(b) through (e) and (h), as specified in 40 CFR 63.3110. **(40 CFR, Part 63, Subparts A and III)**
3. For any coating operation(s) using add-on controls, the permittee shall submit all performance test reports for emission capture systems and add-on control devices, and reports of transfer efficiency tests as required by 40 CFR 63.3120(b). **(40 CFR 63.3120(b))**

4. If an emission capture system or add-on control device is used to comply with any of the emission limits in Special Condition numbers I.1 through I.4, and a startup, shutdown, or malfunction occurs during the semiannual reporting period, the permittee shall submit a SSM report as specified in 40 CFR 63.3120(c). **(40 CFR 63. 3120(c), 40 CFR 63.10(d))**

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart IIII for Surface Coating of Automobiles and Light Duty Trucks by the initial compliance date as they apply to FG-MACT. The permittee may choose an alternative compliance method not listed in FG-MACT by providing the appropriate notifications required under 40 CFR part 63.9(j), maintaining a log required by 40 CFR Part 70.6(9), and by complying with all applicable provisions required by Subpart IIII for the compliance option chosen. **(40 CFR 70.6(a)(9), 40 CFR Part 63.9(j), 40 CFR Part 63 Subparts A and IIII)**

FG-OLDFACILITY

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The affected source is each new, reconstructed, or existing Organic Liquid Distribution (OLD) (non-gasoline) operation that is located at, or is part of a major source of hazardous air pollutant (HAP) emissions. The affected source is comprised of storage tanks, transfer racks, equipment leak components associated with storage tanks, transfer racks and pipelines, transport vehicles, and all containers while loading or unloading at transfer racks subject to this subpart. Equipment that is part of an affected source under another NESHAP is excluded from the affected source. **(40 CFR 63.2338(c))**

These conditions specifically cover existing (construction pre dates April 2, 2002) liquid storage tanks which hold more than 5,000 gallons but less than 50,000 gallons and/or new liquid storage tanks which hold more than 5,000 gallons but less than 10,000 gallons of methanol/windshield washer fill solvents that are dispensed to newly assembled vehicles.

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA					

II. MATERIAL LIMITS

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 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.2394)**

1. The permittee shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 Organic liquid that verifies the storage tank is not required to be controlled under this subpart. The documentation shall be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review. **(63.2343(b)(3))**

VII. REPORTING

1. The permittee shall submit the following information in either the Notification of Compliance Status, according to the schedule in Table 12 to this subpart, or in your first Compliance report according to the schedule in 63.2386(b), which ever occurs first. **(63.2343(b)(1))**
 - a) Company name and address.
 - b) A statement by a responsible official, including the official's name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate and complete.
 - c) Date of report and beginning and ending dates of the reporting period.
 - d) A list of all storage tanks greater than 5,000 gallons that are part of the affected source but not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.

2. The permittee shall submit subsequent compliance reports according to the schedule in 63.2386(b) or in conjunction with the reporting requirements in this ROP whenever any of the following events occur as applicable: **(63.2343(b)(2))**
 - a) Any storage tank became subject to control under this subpart EEEE.
 - b) Any storage tank greater than 5,000 gallons became part of the affected source, but is not subject to any emission limitations, operating limits or work practice standards of this subpart.

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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart EEEE as they apply to FG-OLDFACILITY. The permittee may choose an alternative compliance method not listed in FG-OLDFACILITY by providing the appropriate notifications required under 40 CFR 63.9(j), maintaining a log required by 40 CFR 70.6(a)(9), and by complying with all applicable provisions required by Subpart EEEE for the compliance option chosen. **(40 CFR Part 70.6(a)(9), 40 CFR Part 63.9(j), 40 CFR Part 63, Subparts A and EEEEE)**

APPENDIX A

Elements of an O & M Plan

General – Keep records of maintenance inspections which include the dates, results of the inspections and the dates and reasons for repairs if made. The following items shall be inspected for each respective add-on control device used to demonstrate compliance with applicable VOC emissions limits.

Thermal Oxidizers

1. Validation of thermocouple accuracy or recalibration of each thermocouple a minimum of once every 12 months. The thermocouple can be replaced in lieu of validation.
2. Perform a heat exchanger visual internal inspection a minimum of once every 18 months.*

Regenerative Thermal Oxidizers

1. Validation of thermocouple accuracy or recalibration of each thermocouple a minimum of once every 12 months. The thermocouple can be replaced in lieu of validation.
2. Perform a heat exchange/heat transfer media inspection a minimum of once every 18 months.*
3. Perform an inspection of the valve seals condition and verify valve timing/synchronization a minimum of once every 18 months.*

* The requirement to address this issue is satisfied if a performance test (i.e., stack test) has been performed on the control device within the prior 18 month period.