

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

March 13, 2018

**PERMIT TO INSTALL
5-18**

ISSUED TO
Ford Motor Company – Romeo Engine Plant

LOCATED AT
701 E 32 Mile Road
Romeo, Michigan

IN THE COUNTY OF
Macomb

STATE REGISTRATION NUMBER
B2869

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: February 20, 2018	
DATE PERMIT TO INSTALL APPROVED: March 13, 2018	SIGNATURE:
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	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU-CONNROD	Connecting rod machining line.	09/01/89	FG-205-87A
EU-CYLHEADBLOCK	Cylinder head and block machining line.	09/01/89 (block machining began) 01/04/10	FG-205-87A
EU-DRYCRANK1-3	Dry machining of cranks and handling of chips produced by the machining operations; including associated exhaust systems and common baghouse dust collector, DDC1.	01/04/10	FG-DRYCRANK
EU-DRYBLOCK5	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and baghouse dust collector, DDC5.	01/04/10	FG-DRYBLOCK5-9
EU-DRYBLOCK6	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and baghouse dust collector, DDC6.	01/04/10	FG-DRYBLOCK5-9
EU-DRYBLOCK7	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and baghouse dust collector, DDC7.	01/04/10	FG-DRYBLOCK5-9
EU-DRYBLOCK8	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and baghouse dust collector, DDC8.	01/04/10	FG-DRYBLOCK5-9
EU-DRYBLOCK9	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and baghouse dust collector, DDC9.	01/04/10	FG-DRYBLOCK5-9
EU-RICEPH1	Emergency Generator: Natural Gas Back-up Generator <500 HP at Penthouse 1 Gen#234738 (Non-Emergency for the purpose of RICE MACT).	10/29/88	NA
EU-EMERGRICEPH2	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 2 Gen#321001.	11/25/92	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEPH3	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 3 Gen#254951.	10/31/89	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEPH4	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 4 Gen#254947.	10/31/89	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEPH5	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 5 Gen#234737.	10/29/88	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEPH6	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 6 Gen#0640404.	09/21/99	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEPH7	Emergency Generator: Natural Gas Back-up Generator @ Penthouse 7 Gen#0695152.	01/26/01	FG-EMERGENCY RICE < 500 HP

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU-EMERGRICEFP1	Emergency Fire Pump #1	~1979	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEFP2	Emergency Fire Pump #2	~1979	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEFP3	Emergency Fire Pump #3	03/11/98	FG-EMERGENCY RICE < 500 HP
EU-EMERGRICEFP4	Emergency Fire Pump #4	05/17/04	FG-EMERGENCY RICE < 500 HP

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.

The following conditions apply to:
EU-RICEPH1

DESCRIPTION: Emergency Generator: Emergency Generator: Natural Gas Back-up Generator <500 HP at Penthouse 1 Gen#234738 (Non-Emergency for the purpose of RICE MACT).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

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

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate and maintain any affected EU-RICEPH1, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605(b))**
2. The permittee shall comply with the following requirements except during period of startup: **(40 CFR 63.6603(a))**
 - a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first except as allowed in Special Condition III.4.
 - b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first.
 - c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.
3. The permittee shall operate and maintain EU-RICEPH1 and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan, which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air-pollution control practice for minimizing emissions. **(40 CFR 62.5525(e), 40 CFR 63.6640(a), Table 6))**
4. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6603(a) and as listed in Special Condition III.2. The oil analysis program must be performed at the same frequency as oil changed is required. The analysis program must analyze the parameters and keep records as required in 63.6625(j). **(40 CFR 63.6625(j))**

5. The permittee must minimize EU-RICEPH1's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes after which time the emission standards applicable to all times other than startup in Table 1a, 2a, 2c, and 2d to the subpart of 40 CFR 63, ZZZZ apply. **(40 CFR 63.6625(h))**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

1. If using the oil analysis program for the SI Engine, the permittee shall test for Total Base Number, viscosity and percent water content. **(40 CFR 63.6625(j))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the maintenance conducted on EU-RICEPH1 in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's maintenance plan. **(40 CFR 63.6655(e) & 63.6660)**
2. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. **(40 CFR 63.6625(f))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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
NA	NA	NA	NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the provisions of the National Emissions Standards of Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ as they apply to EU-RICEPH1. **(40 CFR Part 63 Subpart ZZZZ)**

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-205-87A	Machining operation with associated oil mist collection units originally covered under PTI 205-87A.	EU-CONNROD EU-CYLHEADBLOCK
FG-DRYCRANK	Dry machining of cranks and handling of chips produced by the machining operations; including associated exhaust systems and common baghouse dust collector, DDC1 covered under PTI 50-07B.	EU-DRYCRANK1-3
FG-DRYBLOCK5-9	Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and common baghouse dust collector, DDC5-DDC9 covered under PTI 50-07B.	EU-DRYBLOCK5 EU-DRYBLOCK6 EU-DRYBLOCK7 EU-DRYBLOCK8 EU-DRYBLOCK9
FG-EMERGENCYRICE <500HP	Emergency RICE < 500 brake horsepower (e.g., generators, fire pumps, etc.) subject to 40 CFR 63 Subpart ZZZZ when applicable.	EU-EMERGRICEPH2 EU-EMERGRICEPH3 EU-EMERGRICEPH4 EU-EMERGRICEPH5 EU-EMERGRICEPH6 EU-EMERGRICEPH7 EU-EMERGRICEFP1 EU-EMERGRICEFP2 EU-EMERGRICEFP3 EU-EMERGRICEFP4
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to:
FG-205-87A

DESCRIPTION: Machining operation with associated oil mist collection units originally covered under PTI 205-87A.

Emission Units: EU-CONNROD, EU-CYLHEADBLOCK

POLLUTION CONTROL EQUIPMENT: Oil mist collectors (particulate matter control units) MOM1-7, MOM 9-14, and MOM 18-21

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Particulate Matter (PM)	0.0070 pounds per 1,000 pounds of exhaust gases*	Hourly	Each machining line: EU-CYLHEADBLOCK EU-CONNROD	SC VI.1, SC VI.2, SC VI.3	R 336.1331(1)(c)
2. PM	13.5 pounds per hour	Hourly	All machining lines combined: EU-CYLHEADBLOCK EU-CONNROD	SC VI.1, SC VI.2, SC VI.3	R 336.1331(1)(c)
3. PM	59.1 TPY	12 month rolling time period as determined at the end of each calendar month	All machining lines combined: EU-CYLHEADBLOCK EU-CONNROD	SC VI.4	R 336.1331(1)(c)

* Calculated on a dry gas basis.

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate the exhaust systems for the machining lines in FG-205-87A unless associated particulate control equipment is installed and operating properly. **(R 336.1331(1)(c))**
2. The permittee shall equip and maintain the associate particulate control equipment with a pressure drop indicator. **(R 336.1331(1)(c))**

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 inspect each particulate control unit and record pressure drop of each particulate control unit at least once per calendar week when production occurs. **(R 336.1331(1)(c))**
2. The permittee shall keep a logbook containing each particulate control unit name, monitoring schedule, and the manufacturer’s recommended pressure drop across the filter. **(R 336.1331(1)(c))**
3. When each particulate control is inspected, the permittee shall record the following: **(R 336.1331(1)(c))**
 - a. Oil mist collector identification
 - b. Date of each inspection
 - c. Pressure drop
4. The permittee shall calculate and record the total particulate emission rate in tons, from EU-CYLHEADBLOCK, and EU-CONNROD each calendar month when production occurs. **(R 336.1331(1)(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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. SVMOM20	42	41	40 CFR 52.21 (c) & (d)
2. SVMOM19	42	41	40 CFR 52.21 (c) & (d)
3. SVMOM18	42	41	40 CFR 52.21 (c) & (d)
4. SVMOM13	42	41	40 CFR 52.21 (c) & (d)
5. SVMOM14	42	41	40 CFR 52.21 (c) & (d)
6. SVMOM12	42	41	40 CFR 52.21 (c) & (d)
7. SVMOM21	42	41	40 CFR 52.21 (c) & (d)
8. SVMOM11	42	41	40 CFR 52.21 (c) & (d)
9. SVMOM9	42	41	40 CFR 52.21 (c) & (d)
10. SVMOM6	42	41	40 CFR 52.21 (c) & (d)
11. SVMOM4	42	41	40 CFR 52.21 (c) & (d)
12. SVMOM1	42	41	40 CFR 52.21 (c) & (d)
13. SVMOM10	42	41	40 CFR 52.21 (c) & (d)
14. SVMOM7	42	41	40 CFR 52.21 (c) & (d)
15. SVMOM5	42	41	40 CFR 52.21 (c) & (d)
16. SVMOM3	42	41	40 CFR 52.21 (c) & (d)
17. SVMOM2	42	41	40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
FG-DRYCRANK

DESCRIPTION: Dry machining of cranks and handling of chips produced by the machining operations; including associated exhaust systems and common baghouse dust collector, DDC1 covered under PTI 50-07B.

Emission Units: EU-DRYCRANK1-3

POLLUTION CONTROL EQUIPMENT: Baghouse Dust Collector, DDC1

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.004 lbs. per 1,000 lbs. of exhaust gases*	Hourly	FG-DRYCRANK	SC VI, GC13	R 336.1331
2. PM-10	0.27 lbs. per hour	Hourly	FG-DRYCRANK	SC VI, GC13	40 CFR 52.21 (c) & (d)

* Calculated on a dry gas basis.

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Visible emissions from FG-DRYCRANK shall not exceed a six-minute average of five percent opacity. **(R 336.1301, R 336.1303)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate the exhaust system for any emission unit portion of FG-DRYCRANK unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall equip and maintain the baghouse dust collector with a pressure drop indicator. **(R 336.1331)**

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 inspect the baghouse dust collector and record the following at least once per calendar month when production occurs: **(R 336.1331)**
 - a. pressure drop of the bag house
 - b. the date of the inspection
 - c. any maintenance activities performed

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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-DDC1	26.0	36.0	40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
FG-DRYBLOCK5-9

DESCRIPTION: Dry machining of engine blocks and handling of chips produced by the machining operations; including associated exhaust systems and common baghouse dust collector, DDC5-DDC9 covered under PTI 50-07B.

Emission Units: EU-DRYBLOCK5, EU-DRYBLOCK6, EU-DRYBLOCK7, EU-DRYBLOCK8, EU-DRYBLOCK9

POLLUTION CONTROL EQUIPMENT: Dry Dust Collectors DDC5, DDC6, DDC7, DDC8, DDC9

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.004 lbs per 1,000 lbs of exhaust gas*	Hourly	FG-DRYBLOCK5-9	SC VI.1, GC13	R 336.1331
2. PM-10	0.27 Pounds per Hour	Hourly	EU-DRYBLOCK5	SC VI.1, GC13	40 CFR 52.21 (c) & (d)
3. PM-10	0.2 Pounds per Hour	Hourly	EU-DRYBLOCK6	SC VI.1, GC13	40 CFR 52.21 (c) & (d)
4. PM-10	0.3 Pounds per Hour	Hourly	EU-DRYBLOCK7	SC VI.1, GC13	40 CFR 52.21 (c) & (d)
5. PM-10	0.27 Pounds per Hour	Hourly	EU-DRYBLOCK8	SC VI.1, GC13	40 CFR 52.21 (c) & (d)
6. PM-10	0.10 Pounds per Hour	Hourly	EU-DRYBLOCK9	SC VI.1, GC13	40 CFR 52.21 (c) & (d)

* Calculated on a dry gas basis.

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Visible emissions from FG-DRYBLOCK5-9 shall not exceed a six-minute average of five percent opacity. **(R 336.1301, R 336.1303)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate the exhaust system for FG-DRYBLOCK5-9 unless the associated baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall inspect each baghouse dust collector and record the following at least once per calendar month when production occurs: (R 336.1331)
 - a. pressure drop of the bag house
 - b. the date of the inspection
 - c. any maintenance activities performed

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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-DDC5	28.0	36.0	40 CFR 52.21 (c) & (d)
2. SV-DDC6	22.0	36.0	40 CFR 52.21 (c) & (d)
3. SV-DDC7	34.0	36.0	40 CFR 52.21 (c) & (d)
4. SV-DDC8	30.0	36.0	40 CFR 52.21 (c) & (d)
5. SV-DDC9	16.0	36.0	40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
FG-EMERGENCYRICE<500HP

DESCRIPTION: Emergency RICE < 500 brake horsepower (e.g., generators, fire pumps, etc.) subject to 40 CFR 63 Subpart ZZZZ when applicable.

Emission Units: EU-EMERGRICEPH2, EU-EMERGRICEPH3, EU-EMERGRICEPH4, EU-EMERGRICEPH5, EU-EMERGRICEPH6, EU-EMERGRICEPH7, EU-EMERGRICEFP1, EU-EMERGRICEFP2, EU-EMERGRICEFP3, EU-EMERGRICEFP4

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

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

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall operate and maintain any affected CI RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(40 CFR 63.6605(b))
- The permittee shall comply with the following requirements, except during periods of startup:
(40 CFR 63.6603(a))

For CI Engines: (40 CFR 63.6603(a), Table 2d item 4)

- Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in Special Condition III.4.
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

For SI Engines: (40 CFR 63.6603(a), Table 2d item 5)

- Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in Special Condition III.4.
- Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first.
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

3. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan, which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air-pollution control practice for minimizing emissions. **(40 CFR 62.6625(e), 40 CFR 63.6640(a), Table 6 item 9)**
4. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6603(a) and as listed in Special Condition III.2. The oil analysis program must be performed at the same frequency as oil changes are required. The analysis program must analyze the parameters and keep records as required in 63.6625(i). **(40 CFR 63.6625(i))**
5. The permittee shall not allow the CI engine(s) to exceed 100 hours for maintenance checks and readiness testing. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(ii))**
6. The permittee shall not allow the CI engine(s) to operate more than 50 hours per year for non-emergency situations, as allowed in 40 CFR 63.6640(f)(iii). **(40 CFR 63.6640(f)(iii))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the CI engines with a non-resettable hour meter. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. If using the oil analysis program for CI Engine(s), the permittee shall test for Total Base Number, viscosity and percent water content. **(40 CFR 63.6625(i))**

VI. MONITORING/RECORDKEEPING

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

1. For each CI engine, the permittee shall keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(2), 40 CFR 63.6660)**
2. The permittee shall keep records of all required maintenance performed on the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(4), 40 CFR 63.6660)**
3. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5), 40 CFR 63.6660)**
4. The permittee shall keep records as required in Special Condition III.3 to show continuous compliance with each emission or operating limit that applies. **(40 CFR 63.6655(d), 40 CFR 63.6660)**
5. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's maintenance plan. **(40 CFR 63.6655(e), 40 CFR 63.6660)**

- The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. **(40 CFR 63.6655(f), 40 CFR 63.6660)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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
NA	NA	NA	NA

IX. OTHER REQUIREMENTS

- 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 ZZZZ, as they apply to FG-EMERGENCY RICE < 500 HP. The permittee may choose an alternative compliance method not listed in FG-EMERGENCY RICE < 500 HP by complying with all applicable provisions required by Subpart ZZZZ for the compliance option chosen. **(40 CFR Part 63.9(j), 40 CFR Part 63, Subparts A and ZZZZ)**

The following conditions apply Source-Wide to:
FGFACILITY

DESCRIPTION: All process equipment sources-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 9 TPY	12 month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.3	R 336.1205(1)
2. Aggregate HAP's	Less than 22.5 TPY	12 month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.3	R 336.1205(1)
3. NOx	88.6 TPY	12 month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.6	R 336.1205(1)

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Natural Gas	1,540 MMcf per year	12 month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.4	R 336.1205(1)(a)

2. The permittee shall only combust pipeline quality natural gas in FGFACILITY. **(R 336.1205(1)(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material as received and as applied, using the manufacture's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(1))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and keep records of all the individual and/or aggregate facility HAP emissions using mass balance or an alternate method as approved by the AQD District Supervisor. **(R 336.1205(1))**

2. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1))**
3. The permittee shall keep the following information on a monthly basis: **(R 336.1205(1))**
 - a. Individual and aggregate HAP emissions calculations determining the monthly emissions rate of each in tons per calendar month. Alternatively, for bulk chemical usage which has quarterly records data, usage shall be prorated each month.
 - b. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month. Alternatively, for bulk chemical usage which has quarterly records data, usage shall be prorated each month.
4. The permittee shall calculate and keep, in a satisfactory manner, monthly and 12-month rolling time period as determined at the end of each calendar month, the natural gas usage records for FGFACILITY. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a))**
5. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the end of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1))**
6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period as determined at the end of each calendar month, the NOx emission calculation records for FGFACILITY, as required by SC I.3 using an acceptable emission factor method or a method acceptable to the AQD District Supervisor. **(R 336.1205(1))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA