

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

March 25, 2019

PERMIT TO INSTALL
162-18

ISSUED TO
DCP Antrim Gas, LLC

LOCATED AT
6250 Old State Road
Johannesburg, Michigan

IN THE COUNTY OF
Otsego

STATE REGISTRATION NUMBER
N2940

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: March 22, 2019	
DATE PERMIT TO INSTALL APPROVED: March 25, 2019	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department	Michigan Department of Environmental Quality
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MDEQ	Michigan Department of Environmental Quality
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

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

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUTUR03	Natural Gas fired Centaur 50 turbine with a 4.0MW nameplate capacity with SoLoNox configuration (Heat input 53.5 MMBtu/hr)	TBD	NA
EUPLANT6AMINE	Plant 6 MDEA process for removing CO ₂ from natural gas at a rate of 35 MMSCFD.	06/01/1996	NA
EUEMRGEN01	Diesel fired emergency engine	TBD	NA

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

**EUTUR03
EMISSION UNIT CONDITIONS**

DESCRIPTION

Natural Gas fired Centaur 50 turbine with a 4.0MW nameplate capacity with SoLoNO_x configuration (Heat input 53.5 MMBtu/hr)

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	42 ppm on a dry basis at 15% O ₂ ^A	30-day rolling average as determined each operating day	EUTUR03	SC V.2, V.3	40 CFR 60.4320(a)(1) – Table 1
2. NO _x	150 ppm on a dry basis at 15% O ₂ ^B	30-day rolling average as determined each operating day	EUTUR03	SC VI.2	40 CFR 60.4320(a)(1) – Table 1
3. NO _x	5.35 pph ^A	Hourly	EUTUR03	SC V.2, V.3	R 336.1205(1)(a) & (3)
4. NO _x	38.7 tpy	12-month rolling time period as determined at the end of each calendar month	EUTUR03	SC VI.3	R 336.1205(1)(a) & (3)
5. CO	6.47 pph ^A	Hourly	EUTUR03	SC V.1	R 336.1205(1)(a) & (3)
6. CO	165 ppm on a dry basis at 15% O ₂ ^B	30-day rolling average as determined each operating day	EUTUR03	SC VI.2	R 336.1205(1)(a)
7. CO	43.4 tpy	12-month rolling time period as determined at the end of each calendar month	EUTUR03	SC VI.3	R 336.1205(1)(a) & (3)

^A Limit is for temperature above 0°F

^B Limit is for temperatures below 0°F

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	total sulfur 0.060lb/MMBtu	NA	EUTUR03	SC VI.1	40 CFR 60.4330(a)(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only natural gas as fuel in EUTUR03. **(R 336.1205(1)(a) & (3))**
2. The permittee shall not operate EUTUR03 at temperatures below 0°F for more than 650 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a))**
3. The total startup events for EUTUR03 shall not exceed 100 startups per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a) & (3))**

4. The total shutdown events for EUTUR03 shall not exceed 100 shutdowns per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a) & (3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum rated capacity of EUTUR03 shall not exceed 4.0MW. **(R 336.1205(1)(a) & (3))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas usage rate for EUTUR03 on a continuous basis. The device shall be operated in accordance with 40 CFR 60.4345(c). **(R 336.1205(1)(a) & (3), 40 CFR 60.4345)**

V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup, the permittee shall verify CO emission rates from EUTUR03 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. After the initial test, testing shall be completed at least once every five years. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a) & (3), R 336.2001, R 336.2003, R 336.2004)**
2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of initial startup, the permittee shall verify NO_x emission rates from each unit in EUTUR03, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a) & (3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60 Subpart KKKK)**
3. To demonstrate continuous compliance, the permittee shall perform subsequent performance tests to verify NO_x emission rates from each unit in EUTUR03, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense in accordance with 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK:
 - a. If the previous performance test exceeded 75 percent of the NO_x emission limit, SC I.1, then the permittee shall perform annual performance tests which are no more than 14 calendar months apart.
 - b. If the previous performance test was less than or equal to 75 percent of the NO_x emission limit, SC I.1, then the permittee shall perform subsequent performance tests once every two years which are no more than 26 calendar months apart.

No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a) & (3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4340(a), 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60 Subpart KKKK)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain a record of the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for gaseous fuel, which specifies the maximum total sulfur content. **(40 CFR 60.4365)**

2. The permittee shall record the hours of operation at temperatures below 0°F to show compliance with SC III.2. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (3))**
3. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling total NOx and CO emissions for EUTUR03, as required by SC I.4 and SC I.7. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed using the method outlined in Appendix A or a new method as approved by the AQD District Supervisor. **(R 336.1205(1)(a) & (3))**
4. The permittee shall keep, in a satisfactory manner, records of the monthly total and 12-month rolling total of startup events and shutdown events for EUTUR03 to show compliance with SC III.3, and SC III.4. Records must be kept 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 336.1205(1)(a) & (3))**
5. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit for EUTUR03. This information shall include, but shall not be limited to the following:
 - a. Compliance tests and any testing required under the special conditions of this permit;
 - b. Monitoring data;
 - c. Total sulfur content of the natural gas as required by 40 CFR 60.4365(a);
 - d. Verification of the capacity rating;
 - e. Identification, type, and amount of fuel combusted on a calendar month basis;
 - f. All records required by 40 CFR 60.7, including the initial startup notification and performance tests;
 - g. Records of the number of all startup and shutdown events per turbine;
 - h. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor and shall be consistent with the requirements of 40 CFR 60.7. **(R 336.1205(1)(a) & (3), 40 CFR 60.7, 40 CFR 60.4365(a), 40 CFR Part 60 Subpart KKKK)**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVTUR03	53	60	R 336.1205(1)(a)

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 KKKK, as they apply to EUTUR03. **(40 CFR Part 60 Subparts A & KKKK)**
2. Within 180 days after the initial startup and commissioning of EUTUR03, engines (EUENGINE1 and EUENGINE2) shall be permanently shut down. Generator engines (EUGEN06, EUGEN07, EUGEN08 and EUGEN09) shall be shut down before installation of EUTUR03. Notification of the shutdowns shall be submitted to the AQD District supervisor with 30 days after the shutdown. **(R 336.1205(1)(a) & (3))**

EUPLANT6AMINE EMISSION UNIT CONDITIONS

DESCRIPTION

Plant 6 MDEA process for removing CO₂ from natural gas at a rate of 35 MMSCFD

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. CO ₂	8,614 tons per calendar month ¹	Monthly	EUPLANT6AMINE	SC VI.3	R 336.1901(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not process more than 4,950,000 cubic feet of CO₂ in EUPLANT6AMINE per day.¹ **(R 336.1901(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the flow rate of natural gas entering EUPLANT6AMINE.¹ **(R 336.1901(a))**
2. The permittee shall install, calibrate, maintain, and operate a device to monitor and record the CO₂ content of the gas entering EUPLANT6AMINE on a daily basis.¹ **(R 336.1901(a))**

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 monitor and record the flow rate of natural gas entering the plant on a continuous basis in a manner and with instrumentation acceptable to the AQD District Supervisor.¹ **(R 336.1901(a))**
2. The permittee shall monitor and record the CO₂ content of the gas entering the EUPLANT6AMINE on a daily basis.¹ **(R 336.1901(a))**
3. The permittee shall calculate and record the CO₂ emission rate from EUPLANT6AMINE in tons per month for each calendar monthly using a method acceptable to the AQD District Supervisor.¹ **(R 336.1901(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCO2	12 ¹	50 ¹	R 336.1901(a)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EUEMRGEN01
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Diesel fired emergency engine

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly	EUEMRGEN01	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112
2. CO	3.5 g/kW-hr	Hourly	EUEMRGEN01	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112
3. PM	0.20 g/kW-hr	Hourly	EUEMRGEN01	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112

II. MATERIAL LIMIT(S)

1. The permittee shall burn only ultra-low sulfur diesel fuel in EUEMRGEN01 with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(R 336.1205(1)(a) & (3), R 336.1401, 40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUEMRGEN01 for more than 300 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a) & (3))**
2. The permittee may operate EUEMRGEN01 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. 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 internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**
3. Each engine in EUEMRGEN01 may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**

4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart III, for the same model year, the permittee shall meet the following requirements for each engine of EUEMRGEN01:
 - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
 - b) Change only those emission related settings that are permitted by the manufacturer, and
 - c) Meet the requirements as specified in 40 CFR 89, 94, and/or 1068, as it applies to you.

If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. **(40 CFR 60.4211(a))**

5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine of EUEMRGEN01 and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each EUEMRGEN01 with non-resettable hours meters to track the operating hours. **(R 336.1205(1)(a) & (3), 40 CFR 60.4209(a))**

V. TESTING/SAMPLING

1. The permittee shall conduct an initial performance test for EUEMRGEN01 within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR Part 60 Subpart III. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD 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. Subsequent performance testing shall be conducted every 8,760 hours of engine operation or 3 years, whichever comes first. **(40 CFR 60.4205(b), 40 CFR 60.4211(g), 40 CFR 60.4212, 40 CFR Part 60 Subpart III)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep all required records and 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)(a) & (3), 40 CFR Part 60 Subpart III)**
2. The permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification documentation indicating that EUEMRGEN01 meets the applicable requirements contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart III. If EUEMRGEN01 becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211(a), (b), (g))**
3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for EUEMRGEN01, on a monthly and 12-month rolling time period basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of EUEMRGEN01, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1205(1)(a) & (3), 40 CFR 60.4211, 40 CFR 60.4214)**

4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EUEMRGEN01, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b) of ultra-low sulfur diesel and meets requirements of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. **(R 336.1205(1)(a) & (3), 40 CFR 80.510(b))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUEMRGEN01. **(R 336.1201(7)(a))**
2. The permittee shall submit a notification specifying whether EUEMRGEN01 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart IIII)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEMRGEN01	8	9.5	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal New Source Performance Standards, as specified in 40 CFR Part 60, Subpart A and Subpart IIII for Stationary Compression Ignition Internal Combustion Engines. **(40 CFR Part 60 Subparts A and IIII)**

Footnotes:

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

APPENDIX A NOx and CO Emission Calculations

For EUTUR03:

NOx Emission calculation for temperatures above 0°F:

$$\begin{aligned} NO_x \text{ emissions } \left(\frac{\text{tons}}{\text{month}} \right) &= \left[\text{Fuel Usage } \left(\frac{\text{MMscf}}{\text{month}} \right) * \text{Higher Heating Value } \left(\frac{\text{MMBtu}}{\text{MMscf}} \right) \right] \\ &* \left[NO_x \text{ Emission Factor } \left(\frac{\text{lbs}}{\text{MMBtu}} \right) \right] * \left[\text{Conversion factor } \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right) \right] \end{aligned}$$

Where:

Fuel Usage (MMscf/month) = actual monthly fuel usage data

Heat Content (MMBtu/MMscf) = Standard value in AP-42 for natural gas or supplier data, if available

NO_x EF (lbs/MMBtu) = 0.100, based on manufacturer data, May use updated test data if available, upon request

NOx emission calculations for temperatures below 0°F:

$$\begin{aligned} NO_x \text{ emissions } \left(\frac{\text{lbs}}{\text{hour}} \right) &= \left[NO_x \text{ Emission Factor (ppm)} * \text{Conversion factor } \left(\frac{1}{1,000,000} \right) \right] \\ &* \text{Molecular Weight } \left(\frac{\text{lb}}{\text{lbmol}} \right) * \text{Ideal Gas Law Conversion Factor } \left(\frac{\text{lbmol}}{386.7 \text{ ft}^3} \right) \\ &* \text{Stack Exhaust Flow Rate } \left(\frac{\text{scf}}{\text{hr}} \right) \end{aligned}$$

Where:

Emission Factor (ppm) = Solar Turbines Product Information Letter 167 Revision 6 (1 December 2016)

Molecular Weight (lb/lb-mol) = NO_x=46.1, CO=28.01, VOC=19.04 as NG

Ideal Gas Law Conversion Factor = lb-mol/386.7 ft³

stack Exhaust Flow Rate (scf/hr) = based on manufacturer data, based on manufacturer data, May use updated test data if available, upon request

Use the same methodology for CO as for NO_x.