

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

October 22, 2021

**PERMIT TO INSTALL**  
195-15B

**ISSUED TO**  
Oakland County Water Resources Commissioner's Office

**LOCATED AT**  
155 North Opdyke Road  
Pontiac, Michigan 48342

**IN THE COUNTY OF**  
Oakland

**STATE REGISTRATION NUMBER**  
B1950

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

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: <b>September 23, 2021</b>	
DATE PERMIT TO INSTALL APPROVED: <b>October 22, 2021</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

**PERMIT TO INSTALL**

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## COMMON ACRONYMS

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

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

### POLLUTANT / MEASUREMENT ABBREVIATIONS

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

## GENERAL CONDITIONS

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

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

## EMISSION UNIT SPECIAL CONDITIONS

### EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUBOILER4	A 1.526 MMBtu/Hr natural gas fired boiler	NA
EUBOILER5	A 2200 Btu/Hr natural gas fired boiler	NA
EUBOILER6	A 2.67 MMBtu/hr dual fuel natural gas and process gas boilers used for building heat and the thermal hydrolysis process.	FGBOILER6
EUBOILER7	A 2.67 MMBtu/hr dual fuel natural gas and process gas boilers used for building heat and the thermal hydrolysis process.	FGBOILER6
EUBOILER8	A 2.67 MMBtu/hr dual fuel natural gas and process gas boilers used for building heat and the thermal hydrolysis process.	FGBOILER6
EUENGINEGEN1	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 805 dscf/hr	FGENGINES
EUENGINEGEN2	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 2340 dscf/hr	FGENGINES
EUENGINEGEN3	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 2340 dscf/hr	FGENGINES
EUENGINEGEN4	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 2340 dscf/hr	FGENGINES
EUENGINEGEN5	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 10747 dscf/hr	FGENGINES
EUENGINEGEN6	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 10747 dscf/hr	FGENGINES
EUENGINEGEN7	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 1116 dscf/hr	FGENGINES
EUENGINEGEN8	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 2340 dscf/hr	FGENGINES
EUENGINEGEN9	Natural gas fired reciprocating internal combustion engine driving an emergency generator. Fuel usage: 2340 dscf/hr	FGENGINES
EUWUKENG1	Reciprocating internal combustion Waukesha engine providing power to the aeration blowers. Fueled by either natural gas or digester methane. Heat input: 1.824MMBTU/hr	FGENGINES

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Flexible Group ID</b>
EUWUKENG2	Reciprocating internal combustion Waukesha engine providing emergency backup power to the aeration blowers. Fueled by natural gas. Heat input: 1.824MMBTU/hr	FENGINES
EUFLARE	Flare that burns excess gas from the digesters.	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.

## FLEXIBLE GROUP SPECIAL CONDITIONS

### FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES	All reciprocating internal combustion engines at the facility.	EUENGINEGEN1 EUENGINEGEN2 EUENGINEGEN3 EUENGINEGEN4 EUENGINEGEN5 EUENGINEGEN6 EUENGINEGEN7 EUENGINEGEN8 EUENGINEGEN9 EUWAUKENG1 EUWAUKENG2
FGBOILER6	Three (3) 2.67 MMBtu/hr dual fuel natural gas and process gas boilers	EUBOILER6 EUBOILER7 EUBOILER8

<b>FGENGINES FLEXIBLE GROUP CONDITIONS</b>
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**DESCRIPTION**

All reciprocating internal combustion engines at the facility.

**Emission Unit:** EUENGINEGEN1, EUENGINEGEN2, EUENGINEGEN3, EUENGINEGEN4, EUENGINEGEN5, EUENGINEGEN6, EUENGINEGEN7, EUENGINEGEN8, EUENGINEGEN9, EUWUKENG1, EUWUKENG2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

NA

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

NA

**VII. REPORTING**

NA

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

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 ZZZZ, for Stationary Reciprocating Internal Combustion Engines by the initial compliance date. **(40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)**

2. The permittee shall comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources, as specified in 40 CFR Part 60 Subpart A and Subpart JJJJ for Stationary Reciprocating Internal Combustion Engines, as they apply to each engine in FGENGINES. **(40 CFR Part 60 Subparts A & JJJJ)**

<b>FGBOILER6 FLEXIBLE GROUP CONDITIONS</b>
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**DESCRIPTION**

Three (3) 2.67 MMBtu/hr dual fuel natural gas and process gas boilers.

**Emission Unit:** EUBOILER6, EUBOILER7, EUBOILER8

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only natural gas or process gas in FGBOILER6. **(R 336.1224, R 336.1225)**

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

NA

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

1. The maximum heat input capacity of each boiler in FGBOILER6 shall not exceed a 2.67 million BTU per hour on a fuel heat input basis. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(40 CFR 52.21 (c) & (d))**
2. The permittee shall keep natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas combusted on a monthly and 12-month rolling time period, in million cubic feet per year for FGBOILER6. 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), R 336.1702(a))**
3. The permittee shall keep process gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of process gas combusted on a monthly and 12-month rolling time period, in million cubic feet per year for FGBOILER6. 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), R 336.1702(a))**

**VII. REPORTING**

NA

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

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVBOILER6*	11.5	42	40 CFR 52.21 (c) & (d)
2. SVBOILER7*	11.5	42	40 CFR 52.21 (c) & (d)
3. SVBOILER8*	11.5	42	40 CFR 52.21 (c) & (d)

\*Stack is obstructed by cowl rain cap

**IX. OTHER REQUIREMENT(S)**

NA

## FGFACILITY CONDITIONS

### DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

### POLLUTION CONTROL EQUIPMENT

NA

#### I. EMISSION LIMIT(S)

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	89 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.3 and Appendix A	R 336.1205(3)

#### II. MATERIAL LIMIT(S)

NA

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

NA

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

NA

#### V. TESTING/SAMPLING

NA

#### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of operating time for all fuel burning emission units, except the flare. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx emission calculation records for FGFACILITY, as required by SC I.1 and Appendix A. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the volumetric flow rate of gas burned in the flare. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**

**VII. REPORTING**

NA

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**APPENDIX A**

<b>Emission Unit</b>	<b>Max Heat input capacity or max fuel use capacity</b>	<b>NOx Emission Factor</b>
EUBOILER4	1.526 MMBTU/hr	100 lb/MM standard cubic foot of natural gas
EUBOILER5	2200 BTU/hr	100 lb/MM standard cubic foot of natural gas
EUBOILER6	3348 cubic foot of natural gas and process gas per hour	100 lb/MM standard cubic foot of natural gas and process gas
EUBOILER7	3348 cubic foot of natural gas and process gas per hour	100 lb/MM standard cubic foot of natural gas and process gas
EUBOILER8	3348 cubic foot of natural gas and process gas per hour	100 lb/MM standard cubic foot of natural gas and process gas
EUENGINEGEN1	805 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN2	2340 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN3	2340 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN4	2340 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN5	10747 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN6	10747 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN7	1116 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN8	2340 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUENGINEGEN9	2340 cubic foot of natural gas per hour	4.08 lb/MMBTU
EUWAUKENG1	1.824 MMBTU/hr	4.08 lb/MMBTU
EUWAUKENG2	1.824 MMBTU/hr	4.08 lb/MMBTU
EUFLARE	NA	40 lb/MM standard cubic foot of digester gas

For boilers:  
 (operating hours/month)(max heat input/heat content of fuel)(NOx emission factor)(Ton/2,000lb) = Ton/month

For engines driving generators:  
 (operating hours/month)(max fuel input)(heat content of fuel)(NOx emission factor)(Ton/2,000lb) = Ton/month

For the two Waukesha engines:  
 (operating hours/month)(max heat input)(NOx emission factor)(Ton/2,000lb) = Ton/month

For the flare:  
 (cubic feet of digester gas/month)(NOx emission factor)(Ton/2,000lb) = Ton/month