

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

April 20, 2017

PERMIT TO INSTALL
192-16

ISSUED TO
Maroa Farms, Inc.

LOCATED AT
270 North Fillmore Road
Coldwater, Michigan

IN THE COUNTY OF
Branch

STATE REGISTRATION NUMBER
P0517

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:

December 14, 2016

DATE PERMIT TO INSTALL APPROVED:

April 20, 2017

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	PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM _{2.5}	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
EUMAROABOILER1	One 42 MMBtu/hr natural gas fired boiler with No. 2 fuel oil backup. Boiler is equipped with low NOx burners	11/1/2011	FGMAROABOILERS
EUMAROABOILER2	One 42 MMBtu/hr natural gas fired boiler with No. 2 fuel oil backup. Boiler is equipped with low NOx burners	11/1/2011	FGMAROABOILERS
EUMAROABOILER3	One 42 MMBtu/hr natural gas fired boiler with No. 2 fuel oil backup. Boiler is equipped with low NOx burners	7/1/2014	FGMAROABOILERS
EUMAROABOILER4	One 42 MMBtu/hr natural gas fired boiler with No. 2 fuel oil backup. Boiler is equipped with low NOx burners	7/1/2014	FGMAROABOILERS
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 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
FGMAROABOILERS	Four 42 MMBtu/hr natural gas fired boilers with No. 2 fuel oil backup. Boilers are equipped with low NOx burners during natural gas combustion	EUMAROABOILER1 EUMAROABOILER2 EUMAROABOILER3 EUMAROABOILER4
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment, and exempt equipment	NA

The following conditions apply to: FGMAROABOILERS

DESCRIPTION

Four 42 MMBtu/hr natural gas fired boilers with No. 2 fuel oil backup. Boilers are equipped with low NOx burners during natural gas combustion.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

All boilers are equipped with low NOx burners.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO	43.4 tpy	12 month rolling time period, as determined at the end of each calendar month.	FGMAROABOILERS	SC VI.3	R 336.1205(3))
2. NOx	39.7 tpy	12 month rolling time period, as determined at the end of each calendar month.	FGMAROABOILERS	SC VI.3	R 336.1205(3))

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur in No. 2 oil	15 ppmw	Instantaneous	Each boiler located at this facility	SC V.1, I.1	40 CFR 60.42c(d)
2. No. 2 oil	340,979 gallons per year*	Rolling 12 month time period, as determined at the end of each calendar month	All boilers located at this facility	SC VI.3	R 336.1205(3).
3. No. 2 oil usage for periodic testing purposes	48 hours per year	Calendar Year	Each boiler located at this facility	SC V.1, I.1	R 336.1205(3)
4. Natural gas	1,446.2 million cubic feet per year	Rolling 12 month time period, as determined at the end of each calendar month.	All boilers located at this facility	SC VI.3	R 336.1205(3)

* This limit is applicable only under periods of natural gas curtailment.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not burn liquid fuel in each boiler identified in FGMAROABOILERS except for the following circumstances:
 - a) Periodic testing of liquid fuel, maintenance, or operator training
 - b) Periods of gas curtailment or supply interruptions as defined below:
 - i. Periods of gas curtailment or supply interruption mean periods of time during which the supply of gaseous fuel to an affected boiler is restricted or halted for reasons beyond the control of the permittee.
 - ii. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of the permittee for the purposes of this definition.
 - iii. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption.
 - iv. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the permittee.
- (40 CFR 63.11237)**
2. The burning of liquid fuel in each boiler of FGMAROABOILERS for performance testing, maintenance, or operator training shall not exceed a combined total of 48 hours per boiler during any calendar year. **(40 CFR 63.11237)**
 3. The permittee shall not operate any boiler using natural gas in FGFGMAROABOILERS unless the low NOx burners are installed and are operating properly. **(R 336.1205(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

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 for each delivery of the fuel oil, an analysis (as provided by the supplier), of the sulfur content by percent weight or ppm and the heat content in BTU per gallon or BTU per pound. **(R 336.1401)**
2. The permittee shall monitor and record, in a satisfactory manner, the following parameters on a monthly basis:
 - a) Monthly and 12-month rolling natural gas usage (million cubic feet).
 - b) The No. 2 oil fuel usage (gallons) for all boilers listed in FGMAROABOILERS. **(R 336.1205, R 336.1225,)**
 - c) Monthly and 12-month rolling CO emissions for the facility.
 - d) Monthly and 12-month rolling NOx emissions for the facility.
 - e) Hours for which distillate oil is used in each boiler for purposes of for periodic testing.

The methodology for calculating annual CO and NOx emissions shall be done in a manner acceptable to, and approved by, AQD district staff. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVMorooaBoiler1	30	33.6	R 336.1225
2. SVMorooaBoiler2	30	33.6	R 336.1225
3. SVMorooaBoiler3	30	31.4	R 336.1225
4. SVMorooaBoiler4	30	31.4	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable portions of 40 CFR Part 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Industrial Steam Generating Units".

Footnotes:

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

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

The following conditions apply to: FGFACILITY

DESCRIPTION

All process equipment source-wide including equipment covered by other permits, grand-fathered equipment, and exempt equipment

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO	89.9 tpy	12 month rolling time period, as determined at the end of each calendar month.	FGFACILITY	Appendix A	R 336.1205(3))
2. NOx	89.9 tpy	12 month rolling time period, as determined at the end of each calendar month.	FGFACILITY	Appendix A	R 336.1205(3))

* This value represents the total annual emissions summed with the annual emissions from the PepperCo Facility under permit 217-16

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 336.1201)

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, in a satisfactory manner, the following parameters on a monthly basis:
 - a) Monthly and 12-month rolling CO emissions for the facility.
 - b) Monthly and 12-month rolling NOx emissions for the facility.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Appendix A :

Appendix A. Methodology for Calculating CO and NOx Annual Emissions

Annual emissions of NOx and CO shall be calculated via the use of fuel usage and the use of appropriate emission factors. Emissions are calculated by multiplying the fuel usage quantity (gallons or cubic feet per unit of time) by an emission factor (pound per volume of fuel processed) Following are specific requirements for these calculations:

- Fuel usages shall be compiled on a monthly basis, by the end of the calendar month
- The emission factors shall be based upon stack testing, continuous emission monitoring system (CEMS) data, EPA or other published data (i.e AP-42, MAERS, NSPS), manufacturers recommended values, or other factors approved by the Air Quality Division District staff.
- Emissions shall be aggregated on a monthly basis and an annual basis. Annual emissions shall be expressed as a rolling 12-month time period basis.
- All emission factors used shall be approved by the Air Quality Division staff.
- The calculations shall clearly define how the calculated values were derived.