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

November 24, 2021

PERMIT TO INSTALL 98-21

ISSUED TO 42 Degrees Processing, LLC

LOCATED AT 606 South Park Drive Kalkaska, Michigan 49646

IN THE COUNTY OF Kalkaska

STATE REGISTRATION NUMBER P1215

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: | | | | | |
|--|------------|--|--|--|--|
| November 2, 2021 | | | | | |
| DATE PERMIT TO INSTALL APPROVED: | SIGNATURE: | | | | |
| November 24, 2021 | | | | | |
| 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

IRSLInitial Risk Screening LevelITSLInitial Threshold Screening LevelLAERLowest Achievable Emission RateMACTMaximum Achievable Control TechnologyMAERSMichigan 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

CO2e Carbon Dioxide Equivalent dscf Dry standard cubic foot dscm Dry standard cubic meter Personal Per

gr Grains

HAP Hazardous Air Pollutant

Hg Mercury hr Hour

HP Horsepower 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

 $\begin{array}{ccc} \text{sec} & \text{Seconds} \\ \text{SO}_2 & \text{Sulfur Dioxide} \end{array}$

TAC Toxic Air Contaminant

Temp Temperature

THC Total Hydrocarbons tpy Tons per year 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 |
|------------------|--|-------------------|
| EUEXTRACT1 | One (1) Ethanol extraction and processing of cannabis from biomass and associated material handling | FGPROCESSES |
| EUEXTRACT2 | One (1) Butane extraction and processing of cannabis from biomass and associated material handling | FGPROCESSES |
| EUEXTRACT3 | One (1) Butane extraction and processing of cannabis from biomass and associated material handling | FGPROCESSES |
| EUENGINE1 | An 82 Horsepower (HP) 2-stroke lean burn natural gas- fueled emergency engine manufactured after 2019 | FGENGINES |
| EUENGINE2 | An 82 HP 2-stroke lean burn natural gas-fueled emergency engine manufactured after 2019 | FGENGINES |

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 | Two (2) 82 HP 2-stroke lean burn natural gas-fueled emergency engine manufactured after 2019. | EUENGINE1, EUENGINE2 |
| FGPROCESSES | Three (3) Solvent based cannabis extraction units and associated Cannabis transfer from storage via leg/conveyance/belt/distributor to extraction lines. | EUEXTRACT1, EUEXTRACT2, EUEXTRACT3 |

FGENGINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two (2) 82 HP 2-stroke lean burn natural gas-fueled emergency engine manufactured after 2019.

Emission Unit: EUENGINE1, EUENGINE2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-----------|---------------|----------------------------------|-------------------------|--------------------------------|---------------------------------------|
| | | | Equipment | | |
| 1. NOx | 2.5 g/hp-hr | Hourly | EUENGINE1, EUENGINE2 | SC V.1 | 40 CFR 52.21(c) & (d) |
| 2. NOx | 10 g/hp-hr | Hourly | EUENGINE1, | SC V.1 | 40 CFR 60.4233(d), |
| | | - | EUENGINE2 | | Table 1 of |
| | | | | | 40 CFR Part 60 |
| | | | | | Subpart JJJJ |
| 3. CO | 95.32 g/hp-hr | Hourly | EUENGINE1, | SC V.1 | 40 CFR 52.21(d) |
| | | _ | EUENGINE2 | | |
| 4. CO | 387 g/hp-hr | Hourly | EUENGINE1, | SC V.1 | 40 CFR 60.4233(d), |
| | | _ | EUENGINE2 | | Table 1 of |
| | | | | | 40CFR Part 60 |
| | | | | | Subpart JJJJ |
| 5. VOC | 1.6 g/hp-hr | Hourly | EUENGINE1, | SC V.1 | R 336.1702(a) |
| 5. VOC | 1.6 g/hp-hr | Hourly | EUENGINE1, EUENGINE2 | SC V.1 | R 336.1702 |

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in each engine within FGENGINES. (R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate each engine within FGENGINES for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes the 100 hours as described in SC III.2. (R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 2. The permittee may operate each engine within FGENGINES 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 60.4243(d)(2))

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- 3. Each engine within FGENGINES 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 SC III.2. Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or 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 60.4243(d)(3))
- 4. The permittee shall operate and maintain each engine within FGENGINES according to the manufacturer's emission-related written instructions such that it meets the emission limits in SC I.2 and I.4 over the entire life of the engine. (40 CFR 60.4234, 40 CFR 60.4243(b))
- 5. If any engine in FGENGINES is a non-certified engine or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee shall keep a maintenance plan for the engine and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 60.4243(b)(2))

IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The permittee shall equip and maintain each engine within FGENGINES with a non-resettable hour meter to track the operating hours. (R 336.1225, 40 CFR 60.4237)
- 2. The nameplate capacity of each engine within FGENGINES shall not exceed 82 HP as certified by the equipment manufacturer. (R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4230)

V. TESTING/SAMPLING

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

- 1. If any engine within FGENGINES is a non-certified engine or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee must demonstrate compliance as follows:
 - a) Conduct an initial performance test to demonstrate compliance with the applicable emission limits in SC I.2 and I.4 within 1 year after the engine begins operating in a noncertified manner.
 - b) The performance tests shall be conducted according to 40 CFR 60.4244.
 - c) Subsequent performance testing shall be completed every 8,760 hours of engine operation or every 3 years, whichever comes first, to demonstrate compliance with the applicable emission limits.

No less than 30 days prior to testing, a complete test plan shall be submitted 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 336.1702(a), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21 (c)&(d), 40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall keep, in a satisfactory manner, the following records for each engine within FGENGINES:
 - a) If operated in a certified manner: The permittee shall keep records of the documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
 - b) If operated in a non-certified manner: The permittee shall keep records of testing required in SC V.1.

The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 52.21(c) & (d), 40 CFR 60.4233(d), 40 CFR 60.4243, 40 CFR 60.4245(a))

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- 2. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine within FGENGINES:
 - a) If operated in a certified manner: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that the engine has been maintained according to them, as specified in SC III.4.
 - b) If operated in a non-certified manner: The permittee shall keep records of a maintenance plan, as required by SC III.5 and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4243, 40 CFR 60.4245(a))

- 3. The permittee shall keep records of notifications submitted for the completion of construction and start-up of each engine within FGENGINES. (40 CFR 60.4245(a))
- 4. The permittee shall monitor and record the hours of operation of each engine within FGENGINES during emergencies and non-emergencies, on a monthly, 12-month rolling, and calendar year basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall record the time of operation of each engine within FGENGINES and the reason it was in operation during that time. (R 336.1225, R 336.1702(a), 40 CFR 52.21(c)&(d), 40 CFR 60.4243)

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 each engine within FGENGINES. (R 336.1201(7)(a))
- 2. The permittee shall submit a notification specifying whether each engine within FGENGINES will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. (40 CFR 60.4245(a))
- 3. If any engine within FGENGINES has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
 - a) The date construction of the engine commenced;
 - b) Name and address of the owner or operator;
 - c) The address of the affected source;
 - d) The engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - e) The engine emission control equipment; and
 - f) Fuel used in the engine.

The notification must be postmarked no later than 30 days after construction commenced for the engine. (40 CFR 60.7(a)(1), 40 CFR 60.4245(c))

4. The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(1). The permittee shall submit the notification to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal.¹ (R 336.1225(4))

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. SVENGINE1 | 3 | 4.8 | R 336.1225, 40 CFR 52.21(c)&(d) |
| 2. SVENGINE2 | 3 | 4.8 | R 336.1225, 40 CFR 52.21(c)&(d) |

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart JJJJ, as they apply to each engine within FGENGINES. (40 CFR Part 60 Subparts A & JJJJ, 40 CFR 63.6590(c))
- 2. The permittee shall comply with the 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 each engine within FGENGINES. (40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6585)

Footnotes:

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

FGPROCESSES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three (3) Solvent based cannabis extraction units and associated Cannabis transfer from storage via leg/conveyance/belt/distributor to extraction lines.

Emission Unit: EUEXTRACT1, EUEXTRACT2, EUEXTRACT3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-----------|----------|---|-------------|--------------------------------|--|
| 1. VOC | 29.8 tpy | 12-month rolling time period as determined at | FGPROCESSES | SC VI.2 | R 336.1205, R 336.1225, |
| | | the end of each calendar month | | | R 336.1702(a) |

II. MATERIAL LIMIT(S)

| Material | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-------------------------------|---|--|-------------------------------------|-----------------------------------|--|
| Ethanol and denatured ethanol | 70,000 gal/year | 12-month rolling time period as determined at the end of each calendar month | EUEXTRACT1 | SC VI.2 | R 336.1225, R 336.1702(a) |
| 2. Butane | 13,000 gal/year per extraction unit | 12-month rolling time period as determined at the end of each calendar month | EUEXTRACT2, EUEXTRACT3 (each) | SC VI.2 | R 336.1225, R 336.1702(a) |

- 3. The permittee shall only use ethanol and denatured ethanol in EUEXTRACT1. (R 336.1205, R 336.1225, R 336.1702(a))
- 4. The permittee shall only use butane in EUEXTRACT2 and EUEXTRACT3. (R 336.1205, R 336.1225, R 336.1702(a))
- 5. A request to use an alternative solvent in FGPROCESSES can be submitted to the AQD District Supervisor for approval. (R 336.1205, R 336.1225, R 336.1702(a))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGPROCESSES unless a malfunction abatement plan (MAP) as described in Rule 911(2), for each solvent extraction process, has been submitted within 90 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to

the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1225, R 336.1702(a), R 336.1911)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, operate and maintain the extraction processes within FGPROCESSES according to the manufacturer specification. (R 336.1225, R 336.1702(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 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. (R 336.1205, R 336.1225, R 336.1702(a))
- 2. The permittee shall keep the following information on a monthly basis for each extraction process within FGPROCESSES:
 - a) Volume in gallons of each solvent used.
 - b) VOC content of each solvent as supplied on Safety data sheets (SDS).
 - c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - e) Hours of operations.

The permittee shall keep the records on file at the facility, in a format specified in Appendix A or an alternate format that has been approved by the AQD District Supervisor and make them available to the Department upon reguest. (R 336.1205, R 336.1225, R 336.1702(a))

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

APPENDIX A

Calculating VOC/HAP emissions

The permittee shall demonstrate compliance with the emission limits in this permit by keeping track of the solvent usage in the extraction process. Then completing a mass balance assuming the entire solvent contents in the products are emitted. The calculation can be done using the following equation or an alternative method can be submitted to the AQD District Supervisor.

$$VOC_{emissions} = (Product_{consumption}) * (VOC \%)$$

Where:

 $Product_{consumption} = [Beginning\ Inventory] + [New\ Purchases] - [End\ Inventory]$

VOC % is in weight percent (i.e. *VOC's* weight percent in the product)