

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

April 25, 2018

**PERMIT TO INSTALL  
57-18**

**ISSUED TO  
F.G. Angelo and Sons**

**LOCATED AT  
612 Kaye Lani Avenue  
Monroe, Michigan**

**IN THE COUNTY OF  
Monroe**

**STATE REGISTRATION NUMBER  
P0910**

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:

**April 2, 2018**

DATE PERMIT TO INSTALL APPROVED:

**April 25, 2018**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

| <b>Common Acronyms</b>    |  | <b>Pollutant / Measurement Abbreviations</b> |   |
|---------------------------|--|--|---|
| 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 <sub>2e</sub>                             | Carbon Dioxide Equivalent   |
| CFR                       | Code of Federal Regulations                                | dscf   | Dry standard cubic foot   |
| COM                       | Continuous Opacity Monitoring                              | dscm   | Dry standard cubic meter  |
| Department/<br>department | Michigan Department of Environmental<br>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 <sub>2</sub> 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<br>Quality            | NMOC   | Non-methane Organic Compounds                                       |
| MSDS                      | Material Safety Data Sheet                                 | NO <sub>x</sub>                              | Oxides of Nitrogen  |
| NA                        | Not Applicable   | ng   | Nanogram  |
| NAAQS                     | National Ambient Air Quality Standards                     | PM   | Particulate Matter  |
| NESHAP                    | National Emission Standard for<br>Hazardous Air Pollutants | PM10   | Particulate Matter equal to or less than 10<br>microns in diameter  |
| NSPS                      | New Source Performance Standards                           | PM2.5  | Particulate Matter equal to or less than 2.5<br>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 <sub>2</sub>                              | 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<br>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.

| <b>Emission Unit ID</b>  | <b>Emission Unit Description<br/>(Process Equipment &amp; Control Devices)</b>  | <b>Installation Date /<br/>Modification Date</b> | <b>Flexible Group ID</b> |
|--|---|--|--------------------------|
| EUPROCESS  | A combination of process equipment (screens, crushers, feeders, conveyors, etc.) at 612 Kaye Lani Avenue, Monroe, Michigan, used to reduce larger materials down to smaller sizes, classify and sort materials into various product types, material handling and transporting of material to storage areas. Control methods include equipment enclosures or enclosed within a building, water sprays, drop chutes and/or pant legs for transfer points. | FGCRUSHING                                       | EUPROCESS                |
| EUTRUCKTRAFFIC   | Truck traffic for delivery of material products to customers; truck traffic from quarry pit to processing area and loader traffic associated with processing equipment, storage pile handling and loading delivery trucks. All commercial truck areas and unpaved road portions from the quarry pit to the process area.  | FGCRUSHING                                       | EUTRUCKTRAFFIC           |
| EUSTORAGE  | Open area stock piles of various material sizes and product types. Water spray of material products are used when necessary for material storage piles.   | FGCRUSHING                                       | EUSTORAGE                |
| 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.

| <b>Flexible Group ID</b> | <b>Flexible Group Description</b>   | <b>Associated<br/>Emission Unit IDs</b>    |
|--------------------------|---|--|
| FGCRUSHING               | A nonmetallic mineral crushing facility located at 612 Kaye Lani Avenue, Monroe, Michigan, consisting of crusher(s) and associated process equipment including grinding mills, drills, screening operations, bucket elevators, belt conveyors, loading and bagging operations, storage bins, enclosed truck or railcar loading stations and any other material handling equipment operated at the site. Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may alternatively be installed in lieu of water spray for any particular piece of equipment. Operation of the control equipment is required only when necessary to meet applicable emission limits. | EUPROCESS,<br>EUTRUCKTRAFFIC,<br>EUSTORAGE |
| FGFACILITY               | All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.  |  |

**The following conditions apply to: FGCRUSHING**

**DESCRIPTION:** A nonmetallic mineral crushing facility located at 612 Kaye Lani Avenue, Monroe, Michigan, consisting of crusher(s) and associated process equipment including grinding mills, drills, screening operations, bucket elevators, belt conveyors, loading and bagging operations, storage bins, enclosed truck or railcar loading stations and any other material handling equipment operated at the site. Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may alternatively be installed in lieu of water spray for any particular piece of equipment. Operation of the control equipment is required only when necessary to meet applicable emission limits.

**Emission Units:** EUPROCESS, EUTRUCKTRAFFIC, EUSTORAGE

**POLLUTION CONTROL EQUIPMENT:** Water Sprays

**I. EMISSION LIMITS**

1. Visible emissions from FGCRUSHING shall not exceed the limits in the following table: **(R 336.1301, 40 CFR 52.21 (c) & (d), 40 CFR 60.670)**

|      | <b>Equipment</b>  | <b>Opacity Limit (%)</b> |
|------|---|--------------------------|
| 1.2a | Any equipment enclosed within a building  | No visible emissions     |
| 1.2b | All crushers  | 12                       |
| 1.2c | Screens   | 7                        |
| 1.2d | Rock drills   | 5                        |
| 1.2e | Conveyors/Transfer points   | 7                        |
| 1.2f | Wash screens and all subsequent equipment downstream up to the next crusher or storage bin                  | No visible emissions     |
| 1.2g | All equipment controlled by a baghouse dust collector   | 7                        |
| 1.2h | Wheel loaders and truck traffic   | 5                        |
| 1.2i | Material storage piles  | 5                        |
| 1.2j | Any other process equipment which is part of the nonmetallic mineral crushing facility or related processes | 7                        |

**II. MATERIAL LIMITS**

1. The permittee shall not process more than 1,000 tons of material through FGCRUSHING per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not crush any asbestos tailings or asbestos containing waste materials, as defined by the National Emission Standard for Hazardous Air Pollutants regulations, in FGCRUSHING. **(40 CFR Part 61 Subpart M)**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FGCRUSHING unless the program for continuous fugitive emissions control for all facility roadways, the facility yard, all storage piles, and all material handling operations specified in Appendix A has been implemented and is maintained. **(R 336.1371)**
2. 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 OOO, as they apply to FGCRUSHING. **(40 CFR Part 60 Subparts A & OOO)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate any portion of FGCRUSHING unless the water sprays for each crusher and each screen are installed, maintained and operated in a satisfactory manner. **(R 336.1910, 40 CFR 52.21 (c) & (d))**

#### **V. TESTING/SAMPLING**

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

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 15th 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 daily and monthly records of the amount of material processed through FGCRUSHING. Furthermore, the permittee shall calculate on a monthly basis, the yearly throughput rate based upon the most recent 12-month rolling time period. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request. **(40 CFR 52.21 (c) & (d))**
3. The permittee shall not operate FGCRUSHING unless the nuisance minimization plan for fugitive dust for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix A has been implemented and is maintained. **(R 336.1371)**
4. The permittee shall keep records of all watering/dust suppressant applications for the site roadways, plant yard and stockpiles as required by Appendix A. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1371)**

#### **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 FGCRUSHING. **(R 336.1201(7)(a))**
2. 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)**
3. The permittee shall submit notification to the AQD District Supervisor at least 10 days prior to relocating FGCRUSHING to this site. **(Act 451 324.5505, 40 CFR 52.21 (c) & (d))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA



**IX. OTHER REQUIREMENTS**

1. In the event that EUPROCESS is removed from this location, the permittee may return, install and operate this equipment at this location pursuant to this Permit to Install, provided that all of the following conditions are met:
  - a. There are no outstanding and unresolved compliance issues, resulting from written notification by the AQD, involving either EUPROCESS or this location.
  - b. The permittee provides written notification to the AQD District Supervisor, at least one week prior to the return of EUPROCESS, that the equipment is scheduled to return to this location.

Notwithstanding the provisions of this condition, the AQD may void this permit during the time that EUPROCESS is removed from this location if it has reason to believe that, if returned, EUPROCESS is not likely to operate in compliance with all applicable rules and permit conditions. If this action is taken, the AQD shall notify the permittee, in writing, of the reasons therefore. The voiding of this permit shall be without prejudice to the permittee's right to file a new Permit to Install application. **(Act 451 324.5505, R 336.1201, R 336.1205, 40 CFR 52.21 (c) & (d), 40 CFR 60.7)**

**Footnotes:**

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

**APPENDIX A:  
Nuisance Minimization Plan for  
Fugitive Dust**

**I. Site Roadways / Plant Yard**

- A. The dust on the site roadways and the plant yard shall be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet all applicable emission limits. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.
- B. All paved roadways and the plant yards shall be swept as needed between applications.
- C. Any material spillage on roads shall be cleaned up immediately.
- D. Crushing/Screening operations will be suspended if there is any indication of fugitive dust escaping or impacting the surrounding properties and buildings.

**II. Plant**

The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve. The transfer point from the re-circulating belt to the feed belt shall be equipped with an enclosed chute.

**III. Storage Piles**

- A. Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.
- B. Stockpiles shall be watered on an as needed basis in order to meet the opacity limit of 5 percent. Equipment to apply water or dust suppressant shall be available at the site or on call for use at the site within a given operating day. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.
- C. Material storage piles will be protected from the wind on 3 sides by concrete dividing blocks.
- D. Contaminated material will not be crushed on site.

**IV. Truck Traffic**

On-site vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tailgate. Otherwise, the truck shall be tarped.

**V. AQD/MDEQ Inspection**

The provisions and procedures of this plan are subject to adjustment by written notification from the AQD if, following an inspection, the AQD finds the fugitive dust requirements and/or permitted emission limits are not being met.