

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

February 23, 2022

PERMIT TO INSTALL
106-16C

ISSUED TO
Dynamic Crushing, LLC

LOCATED AT
11998 Cascade Road
Lowell, Michigan 49331

IN THE COUNTY OF
Kent

STATE REGISTRATION NUMBER
P0691

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: December 21, 2021 | |
| DATE PERMIT TO INSTALL APPROVED: February 23, 2022 | SIGNATURE: |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS2
POLLUTANT / MEASUREMENT ABBREVIATIONS.....3
GENERAL CONDITIONS4
EMISSION UNIT SPECIAL CONDITIONS.....6
 EMISSION UNIT SUMMARY TABLE6
FLEXIBLE GROUP SPECIAL CONDITIONS.....7
 FLEXIBLE GROUP SUMMARY TABLE7
 FGCRUSHING.....8
APPENDIX A 11
APPENDIX B..... 12

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 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 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 |
|-------------------------|--|--------------------------|
| EUPROCESS | A combination of process equipment (screens, crushers, feeders, conveyors, etc.) located at 11998 Cascade Road, Lowell, 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 |
| EUTRUCKTRAFFIC | Truck traffic for delivery of material products to customers, loader traffic associated with processing equipment, storage pile handling and loading delivery trucks. All commercial truck areas and unpaved road portions. | FGCRUSHING |
| 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 |

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 |
|--------------------------|--|--|
| FGCRUSHING | A nonmetallic mineral crushing facility located at 11998 Cascade Road, Lowell, 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, EUTRUCKTRAFFIC, EUSTORAGE |

FGCRUSHING FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A nonmetallic mineral crushing facility located at 11998 Cascade Road, Lowell, 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 Unit: EUPROCESS, EUTRUCKTRAFFIC, EUSTORAGE

POLLUTION CONTROL EQUIPMENT

Water Sprays

I. EMISSION LIMIT(S)

1. Visible emissions from FGCRUSHING shall not exceed the limits in the following table: **(R 336.1301, 40 CFR 52.21 (c) & (d), R 336.1901, 40 CFR 60.670)**

| | Equipment | Opacity Limit (%) |
|------|---|--------------------------|
| 1.1a | Any equipment enclosed within a building | No visible emissions |
| 1.1b | All crushers | 10 |
| 1.1c | Screens | 7 |
| 1.1d | Rock drills | 5 |
| 1.1e | Conveyors/Transfer points | 7 |
| 1.1f | Wash screens and all subsequent equipment downstream up to the next crusher or storage bin | No visible emissions |
| 1.1g | All equipment controlled by a baghouse dust collector | 7 |
| 1.1h | Wheel loaders and truck traffic | 5 |
| 1.1i | Material storage piles | 5 |
| 1.1j | Any other process equipment which is part of the nonmetallic mineral crushing facility or related processes | 7 |

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 150,000 tons of material through FGCRUSHING per 12-month rolling time period as determined at the end of each calendar month. **(40 CFR 52.21 (c) & (d))**
2. The permittee shall not process any asbestos tailings or asbestos containing waste materials in FGCRUSHING pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61, Subpart M. **(40 CFR Part 61, Subpart M)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

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 PARAMETER(S)

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))**
2. The permittee shall install and maintain a belt scale(s) on the transfer conveyor(s) portion of FGCRUSHING which continuously shows the daily throughput rate for the conveyor(s). **(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))**

1. Within 60 days after achieving maximum production rate, but not later than 180 days after initial startup of FGCRUSHING, verification of visible emission rates and particulate emission rates from all NSPS subject crushers, screens, all transfer points on conveyors, and all other miscellaneous equipment associated with FGCRUSHING and covered by the NSPS Subpart OOO, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and OOO, will be required. No less than 14 days prior to the anticipated test date, visible emission observation procedures must be approved by the District Supervisor. Also, no less than 7 days prior to the anticipated test date, the permittee shall notify the District Supervisor of the test date. If, after the anticipated test date has been submitted to the District Supervisor, there is a delay in conducting the test, the permittee shall submit to the District Supervisor notice of the new test date. This notification shall be done a minimum of 3 days prior to the rescheduled test taking place. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 30 days following the last date of the test. **(R 336.1301, R 336.2001, 40 CFR Part 60 Subparts A & OOO)**

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 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. 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)**
2. The permittee shall submit notification to the AQD District Supervisor at least 10 days prior to relocating FGCRUSHING to this site; however, if electronic notification is used, the notification shall be submitted at least five days before the change of location or two business days if the owner provided the AQD District Supervisor a list of anticipated operating locations for that calendar year at least 10 days before the change of location and if the proposed location is on that list. **(Act 451 324.5505, 40 CFR 52.21 (c) & (d))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. In the event that FGCRUSHING is removed from the location covered by this permit, the permittee may return, install and operate this equipment 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 FGCRUSHING or any of the permitted locations.
 - b) The permittee provides written notification to the AQD District Supervisor, as specified in SC VII.3, 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 FGCRUSHING is removed from this location if it has reason to believe that, if returned, FGCRUSHING 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))**

2. The permittee shall label all equipment associated FGCRUSHING within 45 days of initial startup according to the company IDs specified in the application (Form EQP5756). Labels shall be in a conspicuous location on the equipment. **(R 336.1201, 40 CFR 60.670)**

Footnotes:

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

APPENDIX A

Fugitive Dust Control Plan

I. Plant

The drop distance at each transfer point throughout the plant shall be reduced to the minimum the equipment can achieve.

II. 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 six inches of the top of any sideboard, side panel or tailgate; otherwise, the truck shall be tarped.

III. Site Roadways and the 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 an opacity limit of five percent.
- b) All paved roadways and the plant yards shall be swept as needed between applications of dust suppressants.
- c) Any material spillage on roads shall be cleaned up immediately.
- d) A record of all applications of dust suppressants and roadway and the plant yard sweepings shall be kept on file for the most recent five-year period and be made available to the AQD upon request.

IV. 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 an opacity limit of five 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.
- c) A record of all watering shall be kept on file for the most recent five-year period and be made available to the AQD upon request.

V. AQD/EGLE 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 the permitted opacity limits are not being met.

APPENDIX B

| Equipment Description | ID Number | Control Device |
|------------------------------|------------------|-----------------------|
| Horizontal Impact Crusher | CR2 | Water Spray |
| 6'x20' Screen | SC1 | Water Spray |
| Radial Stacking Conveyor | ST2 | Residual Moisture |
| Radial Stacking Conveyor | ST3 | Residual Moisture |
| Primary Jaw Crusher | CR3 | Water Spray |
| Transfer Conveyor | TC1 | Residual Moisture |
| Magnet Conveyor | MC1 | Residual Moisture |
| Impact Crusher | CR1 | Water Spray |
| Radial Stacker | ST1 | Residual Moisture |