

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

March 28, 2016

PERMIT TO INSTALL
39-16

ISSUED TO
Top Grade Aggregates, LLC

LOCATED AT
3407 58th Street
Hamilton, Michigan

IN THE COUNTY OF
Allegan

STATE REGISTRATION NUMBER
P0684

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:

March 8, 2106

DATE PERMIT TO INSTALL APPROVED:

March 28, 2016

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section	Page
Alphabetical Listing of Common Abbreviations / Acronyms	2
General Conditions	3
Special Conditions	5
Flexible Group Summary Table	5
Special Conditions for FGCRUSHING	6

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	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	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

Flexible Group Identification

Flexible Group ID	Flexible Group Description
FGCRUSHING	A nonmetallic mineral crushing facility 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. (R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1901, and R 336.1910)
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.	

The following conditions apply to: FGCRUSHING

Emission Limits

- 1.1 The particulate matter (PM) emissions from each baghouse dust collector portion of FGCRUSHING shall not exceed 0.04 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis. **(R 336.1331)**

Visible Emission Limits

- 1.2 Visible emissions from FGCRUSHING shall not exceed the limits in the following table: **(R 336.1205, R 336.1301, R 336.1901, 40 CFR 60.670)**

	Equipment	Opacity Limit (%)
1.2a	Any equipment enclosed within a building	No visible emissions
1.2b	All crushers	15
1.2c	Screens	10
1.2d	Rock drills	5
1.2e	Conveyors/Transfer points	10
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	10

Material Usage Limits

- 1.3 The permittee shall not process more than 2,000,000 tons of any non-metallic mineral through FGCRUSHING per year per site. **(R 336.1205)**
- 1.4 The annual production limit of 2,000,000 tons per year per site shall not apply if FGCRUSHING is operated at a location that is covered by a site specific air use permit. At such a location, the annual material processed shall be in conjunction with the production limit contained in the permit for that location. All other conditions and restrictions of this permit shall apply when operating at such location. **(R 336.1201, R 336.1205, R 336.1901)**
- 1.5 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 61.141)**

Process/Operational Limits

- 1.6 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 336.1205, R 336.1371, R 336.1901)**

Equipment

- 1.7 Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may be installed in lieu of water spray for any particular piece of equipment. The control equipment shall be properly operated as necessary to comply with all emission limits. **(R 336.1205, R 336.1301, R 336.1303, R 336.1331, R 336.1910)**

Testing

- 1.8 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)**

Monitoring

- 1.9 The permittee shall keep, in a satisfactory manner, daily and annual records of the amount of material processed for each site at which the facility operates. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205)**

Recordkeeping/Reporting/Notification

- 1.10 The permittee shall notify the AQD, within 15 days after initial startup of FGCRUSHING, of the actual date of initial startup. **(R 336.1201, 40 CFR Part 60 Subpart A)**

Permit Dates

- 1.11 The permittee shall label all equipment associated FGCRUSHING within 45 days of initial start up 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)**

Miscellaneous/Allowed Modification

- 1.12 The permittee shall not replace or modify FGCRUSHING, or any portion of FGCRUSHING, including control equipment, unless all of the following conditions are met: **(40 CFR Part 60 Subparts A and OOO, R 336.2001)**
- a) The permittee shall update the general permit by submitting a new Process Information Form (EQP5756) to the Permit Section and District Supervisor, identifying all existing and new or additional equipment added to the process a minimum of 10 days before the equipment is replaced or modified.
 - b) The permittee shall continue to meet all general permit to install applicability criteria after the replacement or modification is complete.
 - c) The permittee shall keep records of the date and description of the replacement or modification.
 - d) The permittee shall notify the Air Quality Division, within 15 days after startup of any new or additional equipment, of the actual date of initial startup.
 - e) All new or additional equipment that is subject to the federal NSPS Subpart OOO, which has not been previously tested, shall comply with the testing requirements of the NSPS.

- 1.13 The permittee shall not relocate FGCRUSHING to any new geographical site in Michigan unless all the following criteria are met: **(Act 451 324.5505(5), R 336.1201, R 336.1205, R 336.1901)**
- a) The facility shall have no outstanding unresolved violations of any of the Michigan Department of Environmental Quality Air Pollution Control rules, orders, or permits; or Federal air quality regulations.
 - b) A notice of intent to relocate (Relocation Notice Form EQP5757); a copy of the original general permit forms (EQP5727, EQP5729 and EQP5756); any Process Information forms for previous modifications; and a proposed site plan identifying the proposed new geographical site and the probable duration at the new site shall be provided to the appropriate district office and the Permit Section not less than 10 days prior to the scheduled relocation. All residential or commercial establishments and places of public assembly within 1,000 feet of the proposed facility site shall be clearly identified on the proposed site plan.
 - c) The crusher(s) shall be located a minimum of 500 feet from any residential or commercial establishment or place of public assembly.
 - d) A copy of this general permit and conditions shall be clearly posted in the operator's office or workstation.

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/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 the permitted opacity limits are not being met.