

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

May 10, 2007

**PERMIT TO INSTALL  
28-07**



**ISSUED TO**  
BREWER'S CITY DOCK

**LOCATED AT**  
24 Pine Avenue  
Holland Michigan 49423

**IN THE COUNTY OF**  
Ottawa

**STATE REGISTRATION NUMBER**  
N7761

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: <b>February 15, 2007</b>	
DATE PERMIT TO INSTALL APPROVED: <b>May 10, 2007</b>	SIGNATURE: <b>Dennis A. Armbruster</b>
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	Btu	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM-10	Particulate Matter less than 10 microns diameter
MSDS	Material Safety Data Sheet	pph	Pound per hour
NESHA	National Emission Standard for Hazardous Air Pollutants	ppm	Parts per million
P		ppmv	Parts per million by volume
NSPS	New Source Performance Standards	ppmw	Parts per million by weight
NSR	New Source Review	psia	Pounds per square inch absolute
PS	Performance Specification	psig	Pounds per square inch gauge
PSD	Prevention of Significant Deterioration	scf	Standard cubic feet
PTE	Permanent Total Enclosure	sec	Seconds
PTI	Permit to Install	SO <sub>2</sub>	Sulfur Dioxide
RACT	Reasonably Available Control Technology	THC	Total Hydrocarbons
ROP	Renewable Operating Permit	tpy	Tons per year
SC	Special Condition	µg	Microgram
SCR	Selective Catalytic Reduction	VOC	Volatile Organic Compounds
SRN	State Registration Number	yr	Year
TAC	Toxic Air Contaminant		
TEQ	Toxicity Equivalence Quotient		
VE	Visible Emissions		

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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, 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **(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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
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**

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>
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.
FGSLAG	Slag storage and handling operations including screening and conveying processes. The slag screening operation will be equipped with a water spray control system.

Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.

**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)**

	<b>Equipment</b>	<b>Opacity Limit (%)</b>
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 468,000 tons of any non-metallic mineral through FGCRUSHING per year when operating at the 24 Pine Avenue, Holland, Michigan location.  
**(R 336.1205)**

- 1.4 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)**
- 1.5 The permittee shall not crush any slag materials at the 24 Pine Avenue, Holland, Michigan facility unless a Permit to Install authorizing such action is issued by the Department. **(R 336.1201(1), R 336.1225)**

#### **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)**
- 1.7 The permittee shall not operate any crushing equipment at the 24 Pine Avenue, Holland, Michigan location except from 7 a.m. through 7 p.m. **(R 336.1901)**

#### **Equipment**

- 1.8 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, and R 336.1910)**

#### **Testing**

- 1.9 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**

- 1.10 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**

1.11 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**

1.12 The permittee shall label all equipment associated with 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**

1.13 In the event that FGCRUSHING 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 FGCRUSHING or this location.
- b) The permittee provides written notification to the AQD District Supervisor, prior to the removal of this equipment, stating an intent to return and operate FGCRUSHING within 12 months of its removal from this location.
- c) The permittee provides written notification to the AQD District Supervisor, at least one week prior to the return of FGCRUSHING, that the equipment is scheduled to return to this location.
- d) The permittee returns FGCRUSHING to this location within 12 months of its removal.
- e) When operating at the 24 Pine Avenue, Holland, Michigan location, the crusher(s) shall be located a minimum of 275 feet from any residential or commercial establishment or place of public assembly.

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, R 336.1901)**

**The following conditions apply to: FGSLAG**

**Visible Emission Limits**

2.1 Visible emissions from FGSLAG shall not exceed the limits in the following table: **(R 336.1205, R 336.1301, R 336.1901)**

	<b>Equipment</b>	<b>Opacity Limit (%)</b>
2.1a	Screens	10
2.1b	Conveyors/Transfer points	10
2.1c	Wheel loaders and truck traffic	5
2.1d	Material storage piles	5

**Material Usage Limits**

2.2 The permittee shall not handle more than 500,000 tons of slag per year nor screen more than 200,000 tons of slag in FGSLAG per year. **(R 336.1205)**

**Process/Operational Limits**

2.3 The permittee shall not operate FGSLAG 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**

2.4 The slag screening operation shall be equipped with a water spray control system. The control system shall be properly operated as necessary to comply with all emission limits. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1303, R 336.1331, and R 336.1910)**

**Monitoring**

2.5 The permittee shall keep, in a satisfactory manner, daily and annual records of the amount of slag handled and screened. 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)**

## **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.