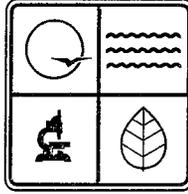


STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI AIR CONSERVATION COMMISSION



**PERMIT BOOK**

**PERMIT TO CONSTRUCT**

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **102006-008** Project Number: **2006-03-050**

Owner: **Master Marble Incorporated**

Owner's Address: **1292 SW 125, Holden, MO 64040**

Installation Name: **Master Marble Incorporated**

Installation Address: **1292 SW 125, Holden, MO 64040**

Location Information: **Johnson County, S35, T46, R28**

Application for Authority to Construct was made for:

**Construction of a cultured marble manufacturing facility. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.**

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

OCT 11 2006

EFFECTIVE DATE

*Steven Juler for JLR*

DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

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The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2006-03-050

Master Marble Incorporated

1292 SW 125, Holden, MO 64040

Master Marble Incorporated

1292 SW 125, Holden, MO 64040

Johnson County, S35, T46, R28

Construction of a cultured marble manufacturing facility. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Page No.	2
Permit No.	
Project No.	2006-03-050

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

Master Marble Incorporated  
Johnson County, S35, T46, R28

1. VOC Emission Limitation
  - A. Master Marble Incorporated shall emit less than 250 tons of Volatile Organic Compounds (VOCs) from the installation in any consecutive 12-month period.
  - B. Attachment A or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1(A). Master Marble Incorporated shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used in this equipment.
  - C. Master Marble Incorporated shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(B) indicate that the source exceeds the limitation of Special Conditions Number 1(A).
2. Operational Requirements  
Master Marble Incorporated shall keep all of the solvents and cleaning solutions in sealed containers whenever the materials are not in use. Master Marble Incorporated shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2006-03-050  
Installation ID Number: 101-0054  
Permit Number:

Master Marble Incorporated  
1292 SW 125  
Holden, MO 64040

Complete: June 15, 2001  
Reviewed: June 19, 2006

Parent Company:  
Master Marble Incorporated  
1292 SW 125  
Holden, MO 64040

Johnson County, S35, T46, R28

REVIEW SUMMARY

- Master Marble Incorporated has applied for authority to construct a cultured marble manufacturing facility.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are styrene.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart WWWW, *National Emission Standards for Pollutants: Reinforced Plastic Composites Production*, applies to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOCs are conditioned to below major source levels.
- This installation is located in Johnson County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed for this review. No model is currently available which can accurately predict ambient ozone concentrations

caused by this installation's VOC emissions.

- Emissions testing is not required for the equipment by this permit. However, emission testing may be required as per the MACT standard, Subpart WWWW.
- A Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Master Marble Incorporated ("Master Marble") is a manufacturer of cultured marble counter-tops in Holden, Missouri. It is an existing installation, but has not received any permits from the Air Pollution Control Program. However, a complete Application for Authority to Construct was received by the Air Pollution Control Program on January 17, 2003.

At the time, the facility submitted the application as remedial action for constructing without a permit. According to the Emission Inventory Questionnaires (EIQs) submitted in 2003 and 2004, Master Marble has exceeded the ten (10) ton limit for individual HAPs. Because Master Marble has exceeded their 10-ton limit, they are considered a major source and are subject to the MACT, Subpart WWWW. Since the installation is subject to MACT, this project is not subject to the requirements of Missouri Rule 10 CSR 10-6.060, Section (9), *Hazardous Air Pollutant Permits* even though the potential to emit for individual HAPs and the combined HAPs exceed the major source levels of 10.0/25.0 tons per year, respectively.

The existing installation is considered a Part 70 source of air emissions by the Air Pollution Control Program. Master Marble submitted a Part 70 application in May of 2001.

On January 24, 2006, a routine air pollution inspection of Master Marble was conducted. A Notice of Violation (NOV) #A2469KC was issued to Master Marble for failure to submit an initial notification by the required date of August 19, 2003 as required by 40 CFR 62, Subpart WWWW.

#### PROJECT DESCRIPTION

Master Marble has applied for authority to construct a cultured marble counter-tops manufacturing facility. The process begins with preparation of the molds by spraying the mold with a non-VOC mold release agent. A thin coating of gelcoat is then sprayed onto the mold and allowed to cure (EP01 or EP02). The curing process takes up to an hour depending on the temperature and humidity. The resin mix (EP04) is manually poured on top of the dried gelcoat and allowed to cure. The curing time again is approximately an hour. Then for one product line the finished product is pulled out of the mold and the rough edges are sanded or grinded and then buffed (EP07). For the other product line, the dried resin is then sprayed with a resin (EP03 or EP06) and

allowed to cure, again for an hour. The finished product is pulled out of the mold and the rough edges are sanded or grinded and the product is buffed (EP07). Master Marble produces about 40 to 45 finished products in one shift. The maximum hourly design rates (MHDR) of EP01, EP02, EP03, EP04, and EP06 are based on the maximum number of molds that can be produced and the amount of time needed for preparation and curing. Each emission point has an MHDR of 0.006 tons of resin or gelcoat per hour plus 0.006 tons of catalyst per hour. The MHDR for grinding and sawing is based on historical amounts of material collected from this area. A portion of the material is recycled back into the mixer (EP04). The MHDR is equal to 1.0 pounds per hour.

Propane space heaters with a heat input of 1.15 mmBTU per hour have a combined MHDR of 0.013 Mgal per hour.

Solvent is used for cleaning purposes. The MHDR is based on maximum historical usage and is equal to 220 gallons per year.

Master Marble has no control devices

#### EMISSIONS/CONTROLS EVALUATION

The styrene emission factors used to determine styrene emissions from the application of gelcoat, resin and catalyst were obtained from Composite Fabricators Association's table, *Unified Emission Factors from Open Molding Composites (07/2001)*. The VOC emission factors used in this analysis were estimated using information obtained from the Material Safety Data Sheets for the gelcoat, resin and catalyst as well as the solvent used for cleaning. A mass balance approach was used to conservatively estimate that 100% of the VOC content would be emitted into the atmosphere. The emission factors used to determine emissions from the propane heaters were obtained from EPA document Factor Information Retrieval (FIRE) V6.24, *Source Classification Codes and Emission Factors Listing for Criteria Air Pollutants (SCC 1-05-001-10)*. PM<sub>10</sub> emissions from grinding and sawing are based on a mass balance approach taking into account the amount of particulate matter recycled back into the process. 100% of the material collected from the grinding and sawing is assumed to be emitted initially as PM<sub>10</sub>. No control devices are used to control emissions at this installation.

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). Since this installation has not received any construction permits, there are no existing potential emissions. Existing actual emissions were taken from the applicant's 2005 Emissions Inventory Questionnaire (EIQ) submittal. The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	N/A	1.02	4.45	N/A
SO <sub>x</sub>	40.0	N/A	<0.01	<0.01	N/A
NO <sub>x</sub>	40.0	N/A	0.12	1.11	N/A
VOC	40.0	N/A	13.34	295.34	<250
CO	100.0	N/A	0.02	0.19	N/A
HAPs	10.0/25.0	N/A	7.58	62.09	N/A
Styrene	10.0	N/A	7.58	62.09	N/A

N/A = Not Applicable

### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOCs are conditioned to below major source levels.

### APPLICABLE REQUIREMENTS

Master Marble Incorporated shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110  
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-2.070

## SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Maximum Achievable Control Technology (MACT) Regulations*, 10 CSR 10-6.075, *National Emission Standards for Pollutants: Reinforced Plastic Composites Production*, 40 CFR Part 63, Subpart WWWW
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-2.040

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Susan Heckenkamp  
Environmental Engineer

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Date

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated January 14, 2003, received January 17, 2003, designating Master Marble Incorporated as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Level II State Source Inspection, dated January 24, 2006.



than 250.0 tons indicates compliance.

Mr. Bob Bird  
Contact's Title  
Master Marble Incorporated  
1292 SW 125  
Holden, MO 64040

RE: New Source Review Permit - Project Number: 2006-03-050

Dear Mr. Bird:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:shl

Enclosures

c: Kansas City Regional Office  
PAMS File 2006-03-050  
Permit Number: