

217/782-2113

CONSTRUCTION PERMIT - PSD APPROVAL - REVISED
OPERATING PERMIT

PERMITTEE

Master Brand Cabinets, Inc.
Attn: Mick Price
217 South Oak Street
Arthur, Illinois 61911

Application No.: 91020002
Applicant's Designation: FINISHOP
Subject: Cabinet Coating Line
Date Issued:

I.D. No.: 139404AAH
Date Received: January 27, 2002
Operating Permit Expiration
Date: Upon Renewal of Title V Permit

Location: 217 South Oak, Arthur

Permit is hereby granted to the above-designated Permittee to MODIFY existing coating line Monorail 1 and associated operations, to CONSTRUCT new coating line Monorail 2 and associated operations, and to OPERATE monorail lines 1 and 2 and other existing equipment including central vacuum system, two gas-fired boilers, and one gas/wood fired boiler with a multiple cyclone dust collector, web scrubber, HEAF filtration unit and mist eliminator as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the federal rules for Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced equipment and to operate the plant as described in the application, with the coating lines, in that the Illinois Environmental Protection Agency (IEPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the IEPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow.

Findings

1. Master Brand Cabinets ("Master Brand", formerly Schrock Handcrafted Cabinetry) operates a wood cabinet plant in Arthur. In 1992, Master Brand obtained a PSD permit for two coating lines, Monorail 1 and Monorail 2. Master Brands has applied for revision of the permit the amount of particulate matter emission permitted for these lines.
2. Master Brand is located in Lowe Township in Moultrie County. The area is currently designated attainment for all air contaminants.

3. The plant is a major plant under the PSD rules for volatile organic material emissions. The 1992 modification was subject to PSD review as a major modification of an existing major source for volatile organic material emissions. The modification was not considered major for other pollution.
4. The plant must be operated so that emissions are in compliance with (i) all applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of volatile organic material. The requested revision does not relax or otherwise alter these requirements, as now applicable to the plant.
5. The IEPA has determined that the requested permit revision complies with all applicable Illinois Air Pollution Control Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
6. A copy of the application and a draft of this permit were placed in a location in the vicinity of the plant and the public was given notice and opportunity to examine this material, to submit comments, and to request and participate in a public hearing on this matter.

The IEPA is issuing approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization of IEPA.

Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by the following special conditions.
- 2a. The VOM content of the coatings used on Monorail 1 and Monorail 2 as applied on the lines shall not exceed the following:

Stain	6.6 ^a
Sealer	5.0 ^a
Specialty Top Coat	5.0 ^a
Pigmented Coatings	5.0 ^a
Water-Based Topcoat	2.3 ^b

^a Excluding water and exempt compounds

^b Includes water

- b. The usage of specialty topcoat shall not exceed 5000 gallons per year. For this purpose, specialty topcoat will only be used when the water-based topcoat is not technically feasible. Topcoat includes coatings when used as the final coating(s) on a substrate, even if a coating may also be used as a sealer.

- c. The stain and sealer shall be applied with high volume low pressure (HVLP) spray equipment operated at an air pressure not to exceed 10 psig, or application equipment with equivalent or better transfer efficiency as approved by the Illinois EPA through issuance of a construction permit prior to the installation of such equipment.
- 3a. The requirements of 35 Ill. Adm. Code Part 215, Sections 215.624-Covers, 215.628-Leaks, and 215.630, shall be followed to minimize VOC emissions from storage, handling and processing of coating in the paint kitchen, i.e., the coating storage and preparation area.
 - b. Closed containers shall be used for the storage and disposal of cloth or paper used for VOM solvent cleanup.
 - c. Fresh or spent VOM solvent shall be stored in closed containers.
 - d. Equipment for collecting VOM solvent and VOM containing cleaning compounds and minimizing evaporation of VOM to the atmosphere shall be used for the cleanup of mixing, storage and spray equipment.
 - e. Containers of VOM coating and thinner shall not be left open to the atmosphere when not in use.

Conditions 2 and 3 represent the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act.

- 4a. Emissions of particulate matter shall not exceed the following limits:

<u>Emission Unit</u>	<u>Emissions</u>	
	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Monorail #1	6.2	6.4
Monorail #2	6.2	6.4

- b. The Permittee shall operate, maintain and replace the filters in a manner that assures compliance with the conditions of Condition 4(a).
- c. An adequate inventory of spare filters shall be maintained.

These requirements replace requirements for particulate matter emissions from the monorail lines previously set in Permit 91020002, pursuant to the Permittee's request dated January 27, 2002.

- 5a. Natural gas or other commercial gaseous fuel shall be the only fuels burned in equipment at the plant, other than the natural gas/wood fired Kewanee boiler.
- b. Emissions of nitrogen oxides, carbon monoxide, and particulate matter from the Kewanee boiler shall not exceed 2.7, 3.2, and 1.1 ton/yr, respectively.

6. The emission rate of volatile organic material (VOM) from the proposed new monorail line #2, modified monorail line #1 and existing trim booth and mill room booth combined, including associated paint kitchen and cleanup shall not exceed 292 tons/yr and 37.3 tons/month.

Conditions 4 to 6 are required to ensure that the project will be constructed and operate in accordance with the description presented in the application.

- 7a. Compliance with annual limits shall be determined from a running total of 12 months of data.
 - b. Beginning with completion of construction of Monorail 2, emissions for the first six individual months shall not exceed the monthly limit of 37.3 tons VOM. The emissions for the first six months combined shall not exceed 146 tons (50% of the annual limit) and after nine months not exceed 219 tons (75% of the annual limit).
- 8a. The VOM content coatings as applied shall be determined by coating manufacturer's formulation data, adjusted for actual composition as applied, or by appropriate USEPA Test Method, e.g. Method 24 or 24A. In the case of an inconsistency in formulation data and test results, test results will govern.
 - b. The VOM content of coatings shall be determined by test method on a random schedule to verify formulation data and at such other times as the Agency may request. Sampling for such testing shall be conducted in accordance with 35 Ill. Adm. Code 218.105(a), as in effect on December 31, 1991.
- 9a. The emissions of particulate matter from the Kewanee boiler shall not exceed 0.1 pound per million BTU, pursuant to 35 Ill. Adm. Code 212.204.
 - b. Wood firing of the boiler shall be shut down during a shutdown, malfunction, or breakdown of any of the associated air pollution control equipment. The air pollution control equipment may only be bypassed during firing of the boiler with only natural gas.
 - c. The Permittee shall inspect, monitor, maintain, and operate the boiler and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
- 10a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with the limits in this permit.
 - i. Records related to VOM emissions associated with coating lines:
 - A. Usage of each coating (lb or gal/month).
 - B. VOM content of each coating (lb/gal).

- C. Cabinets produced.
 - D. VOM emissions (lb/month).
 - E. Usage and recovery of VOM solvent for clean up and other operations.
- ii. Records related to particulate matter emissions associated with coating lines:
 - Operation of spray booth filters.
 - iii. Records related to emission of the Kewanee boiler.
 - Operation of particulate control system on gas/wood-fired boiler.
- b. These records shall be retained for two years and shall be available for inspection and copying by the Illinois EPA.
11. The Permittee shall file annual reports listing the following items:
- a. Monthly emissions of VOM (tons);
 - b. Cabinets coated, by month;
 - c. VOM emitted per cabinet, by month (lb/cabinet); and
 - d. VOM content of all currently employed coatings, with classification of each (lb/gal).
12. Any required reports and notifications concerning equipment operation, performance testing or a monitoring systems shall be sent to the Agency's regional office at the following address unless otherwise indicated:
- Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
13. Upon written request, the Permittee shall submit to the Agency in Springfield copies of Material Safety Data Sheets or Manufacturer's Specification Sheets for the coatings and other materials specifically identified by the Agency, for those materials for which this data has not previously been supplied to the Agency.
14. This Permit does not relieve the Permittee of the responsibility to comply with applicable provisions of the Illinois State Implementation Plan, as well as other applicable federal, state and local requirements.

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It should be noted that this Permit has been revised to increase the permitted PM emission of the monorail lines (See Condition 4). Revision of the source's CAAPP permit to also reflect the revised requirements of this permit and related recordkeeping requirements in Condition 10A(a)(ii) shall be undertaken using the applicable procedures for modification of CAAPP permits.

The Permittee is allowed to operate under the revised conditions of this permit until the CAAPP permit for this source is reissued.

If you have any questions on this, please call Bob Smet at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RPS:jar

cc: Region 3
USEPA

**MASTERBRAND CABINETS
ARTHUR, ILLINOIS
PROJECT SUMMARY**

I. INTRODUCTION

MasterBrand Cabinets ("MasterBrand") has requested a modification of its existing PSD permit for its wood cabinet manufacturing plant in Arthur. The request does not involve any physical change in operations but only an increase in permitted emissions of particulate matter (PM) from the coating lines.

II. SOURCE DESCRIPTION

MasterBrand manufactures wood cabinets. To coat the product, MasterBrand uses two sets of spray booths, which comprise the Monorail coating lines. These Monorails are conveyORIZED lines that convey the wood part from one spray booth to the next. The pollutants generated by these coating activities are volatile organic material (VOM) from the solvent and particulate matter (PM) from the solids overspray of the coating.

III. PROJECT EMISSIONS

This permitting action addresses only PM emissions from the process, since no change has been requested to the provisions for the VOM emissions in the PSD permit.

Change in Permitted PM Emissions (Ton/Year)		
Emission Unit	Current Permit (Tons/Year)	Requested Permit (Tons/Year)
Monorail Line 1	0.3	6.4
Monorail Line 2	0.3	6.4

IV. APPLICABLE REGULATIONS

A. General

PM emissions with the requested permit modification will comply with applicable state and federal emission standards, including the Illinois Air Pollution Control Board emission standards and regulations (35 Ill. Adm. Code: Subtitle B) and applicable federal emission standards.

B. Additional Requirements

The Masterbrand is a major source subject to the Prevention of Significant Deterioration (PSD) regulations, 40 CFR 52.21 because it is permitted to emit more than 200 tons/year of VOM.

The permitted PM emissions under the requested modification is 12.8 tons per year. This is below 25 tons/year for PM and 15 tons/year for PM₁₀. Hence the permitted emissions still will not be significant and PM will not be subject to additional requirements imposed by the federal rules for Prevention of Significant Deterioration (PSD), namely, that Best Available Control Technology (BACT).

V. PROPOSED PERMIT

The conditions of the proposed permit contain limitations and requirements for the coating lines, including measures to minimize PM emissions. The permit also establishes appropriate compliance procedures, including inspection practices, recordkeeping requirements and reporting requirements.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the requested modification meets all applicable state and federal air pollution control requirements. The Illinois EPA is therefore proposing to issue a permit for construction of the proposed project.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.