

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary for an Application
from MasterBrand Cabinets, Inc. for a
Revision to a Construction Permit for Spray Booths
at an Existing Wood Cabinet Coating Operation in
Arthur, Illinois

Site Identification No.: 139404AAH
Application No.: 97090044

Illinois EPA Contacts

Permit Analyst: Bob Smet
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Important Dates:

Application Received: January 25, 2010
Public Comment Period Begins: April 1, 2010
Public Comment Period Closes: May 1, 2010

I. INTRODUCTION

MasterBrand Cabinets, Inc. ("MasterBrand") has applied for a revision to a construction permit, which was originally issued in December 1997, for installation of additional spray booths at its wood cabinet plant. The purpose of the requested revision is to increase permitted emissions of volatile organic material (VOM) from the four stain spray booths from 32 to 39 tons per year. MasterBrand is requesting this increase in permitted emissions of the booths due to a projected increase in demand for the style of cabinet finish provided by these booths.

The Illinois EPA has reviewed the application and made a preliminary determination that this application meets applicable requirements. Accordingly, the Illinois EPA has prepared a draft of the revised air pollution control construction permit that it would propose to issue for this project. However, before issuing a revised permit, the Illinois EPA is holding a public comment period to receive written comments on the proposed issuance of a revised permit and the terms and conditions of the draft revised permit.

II. PROJECT DESCRIPTION

The coating operations at this source consist of two overhead monorail lines with a series of spray booths and three "off-line" trim booths. Milled and sanded wood cabinet pieces are sent to the finishing department, where stain, sealer, and topcoat are spray applied on "Monorail #1" (Booths B1 through B8, and B30) and "Monorail #2" (Booths B9 through B16, and B31). The coatings are dried in natural gas-fired ovens after the sealer and topcoat application steps. Touchup and specially sized items are coated in the trim booths (Booths B25, B26 and B27). Each coating booth has a filter to control particulate matter emissions. The plant has a Clean Air Act permit Program (CAAPP), Permit 95120059.

MasterBrand has requested an increase in the permitted emissions of VOM from four booths on the monorail lines, i.e., spray booths B3, B4, B11 and B12, which apply stain. This limit was originally established at 32 tons per year in the original permit for the booths, which was issued in 1997. Due to a projected increase in demand for the style of cabinet finish provided by these booths, a limit of 39 tons per year is being requested by MasterBrand. The VOM limit of 39 tons/year is below the significance threshold of 40 tons year at which the federal rules for Prevention of Significant Deterioration (PSD), 40 CDR 52.21, would apply.

This construction permit also allowed the installation of two pre-seal booths. These booths were installed by MasterBrand to "pre-coat" the end grain of wood pieces, which more readily absorbs coating. The use of pre-seal booths to coat these edges reduced the need to double coat pieces on the monorail lines. Changes to requirements for pre-seal booths are not being requested.

III. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with Illinois Pollution Control

Board emission standards. The Board's emission standard represents the basic requirements for sources in Illinois. The Board has standards for sources of nitrogen oxides, carbon monoxide, volatile organic material, sulfur dioxide and particulate matter. The emission units at the plant readily comply with all applicable emission standards.

The plant's coating lines, including the four stain spray booths are subject to the federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Wood Furniture Manufacturing Operations, 40 CFR 63 Subpart JJ. This NESHAP limits the hazardous air pollutant (HAP) content of the coatings that are used in the spray booths. This requirement continues to be met by the coatings used at the plant.

IV. EVALUATION OF THE CHANGE IN EMISSIONS

The VOM emissions of the four stain spray booths could increase with the requested permit revision for this project. While there could be an increase in VOM emissions, the emissions of the four stain spray booths will not be significant and will not be a major modification for purposes of PSD.

V. CONTENTS OF PERMIT

The revised permit would include revised provisions for the stain booths as previously discussed. The revised permit would continue to contain appropriate conditions for implementation of the applicable state and federal standards for emissions from the units affected by this project. These standards require ongoing monitoring and recordkeeping to verify continuing compliance.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the application for revised permit meets all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft of a revised permit.

Comments are requested by the Illinois EPA on this proposed issuance of a revised permit for this project. If substantial public concern is shown in this matter the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

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