

Ms. Sonya Olbrantz
Mohawk Flush Doors, Inc.
402 N. Sheridan
South Bend, IN 46619

Re: 141-10708
First Minor Permit Modification to
Part 70 No.: T 141-7805-00058

Dear Ms. Sonya Olbrantz:

Mohawk Flush Doors, Inc. was issued a permit on November 17, 1998 for a stationary wood door manufacturing plant. A letter requesting changes to this permit was received on March 3, 1999. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the replacement of spray booth A-B (constructed between 1968 and 1970) with an equivalent spray booth A-B. The spray booth will have an identical maximum capacity, high volume low pressure (HVLP) application system, and stack identification. The booth will have a higher efficiency which will lower the actual VOC and HAPs emissions. However, because of the change in date of construction for booth A-B 326 IAC 8-1-6 will now apply to this booth.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Lynn Nieman, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Lynn Nieman or extension (3-2627), or dial (317) 233-2627.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

GLN

cc: File - St. Joseph County
U.S. EPA, Region V
St. Joseph County Health Department
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau

**PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT**

**Mohawk Flush Doors, Inc.
402 N. Sheridan
South Bend, Indiana 46619**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T141-7805-00058	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: November 17, 1998
First Minor Permit Modification AAT141-10708	Page Affected: 28
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) two-stage spray booth, identified as AB, with a maximum capacity of 101.25 units per hour, utilizing a high volume low pressure (HVLP) application system, with particulate matter overspray controlled by dry filters, and exhausting to either stack A or B;
- (b) One (1) spray booth, identified as C, with a maximum capacity of 101.25 units per hour, utilizing a high volume low pressure (HVLP) application system, with particulate matter overspray controlled by dry filters, and exhausting to stack C; and
- (c) One (1) spray booth, identified as D, with a maximum capacity of 101.25 units per hour, utilizing a high volume low pressure (HVLP) application system, with particulate matter overspray controlled by dry filters, and exhausting to stack D.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

- (a) Spray booths C, and D shall each use less than twenty-five (25) tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 8-1-6 (General Reduction Requirements for New Facilities) not applicable.
- (b) The total potential to emit VOC from spray booth A-B, which is to be constructed, is less than twenty-five (25) tons per twelve consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the PM emissions from these facilities shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Indiana Department of Environmental Management
Office of Air Management**

**Technical Support Document (TSD)
for a Permit Modification
to a Part 70 Operating Permit**

Source Background and Description

Source Name:	Mohawk Flush Doors, Inc.
Source Location:	402 N. Sheridan, South Bend, IN 46619
County:	St. Joseph
SIC Code:	2431
Operation Permit No.:	T141-7805-00058
Operation Permit Issuance Date:	November 17, 1998
Permit Modification No.:	T141-10708-00058
Permit Reviewer:	Lynn Nieman

The Office of Air Management (OAM) has reviewed a modification application from Mohawk Flush Doors, Inc. relating to the operation of a wood door manufacturing plant.

History

Mohawk Flush Doors, Inc. was issued a Part 70 permit on November 17, 1998. A request for a minor permit modification was received on March 3, 1999. This modification will replace the currently permitted spray booth A-B which was constructed between 1968 and 1970 with an equivalent spray booth. This booth will have an identical maximum capacity, High Volume Low Pressure (HVLP) application system, and stack efficiency.

Existing Approvals

The source was issued a Part 70 Operating Permit T141-7805-00058 on November 17, 1998.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 3, 1999.

Emission Calculations

There are no additional changes in Emission Calculations from the original Title V permit.

Potential To Emit

There are no changes in Potential to Emit from the original Title V permit.

Actual Emissions

There are no changes in Actual Emissions from the original Title V permit.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Woodworking	69.2	69.2	--	--	--	--	--
Surface Coating Booth A -B	2.6	2.6	--	15	--	--	9
Surface Coating Booths C and D	2.6	2.6	--	24	--	--	24
Total Emissions	74.4	74.4	0	39	0	0	33

County Attainment Status

There are no changes in County Attainment Status from the original Title V permit.

Federal Rule Applicability

There are no changes in Federal Rule Applicability from the original Title V permit.

State Rule Applicability - Entire Source

There are no changes in State Rule Applicability - Entire Source from the original Title V permit.

State Rule Applicability - Spray Booths

326 IAC 2-1-3.4 (New Source Toxics Rule)

The spray booths C (constructed in 1984), and D (constructed in 1994) were constructed prior to the applicability date of June 29, 1997 for 326 IAC 2-1-3.4. The spray booth A-B (which is to be constructed) has Hazardous Air Pollutant (HAPs) emissions that are greater than ten (10) and less than twenty-five (25). Therefore, the requirements of 326 IAC 2-1-3.4 do not apply since, spray booth A-B is not a major source of HAPs.

326 IAC 8-1-6 (General Reduction Requirements for New Facilities)

- (a) The total potential to emit VOC from the surface coating booth A-B, which is to be constructed, is less than twenty-five (25) tons per twelve consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 do not apply.
- (b) The total potential to emit VOC from the surface coating booths C, and D, which were constructed in 1984 and 1994, respectively, has been limited to less than 25 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 (Best Available Control Technology) do not apply to these booths.

State Rule Applicability - Woodworking/Machining Equipment

There are no changes in State Rule Applicability - Woodworking/Machining Equipment from the original Title V permit.

State Rule Applicability - Insignificant Boiler

There are no changes in State Rule Applicability - Insignificant Boiler from the original Title V permit.

Compliance Requirements

There are no changes in Compliance Requirements from the original Title V permit.

Air Toxic Emissions

There are no changes in Air Toxic Emissions from the original Title V permit.

Conclusion

The operation of this wood door manufacturing plant will be subject to the attached Minor Permit Modification 141-10708-00058

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Mohawk Flush Doors, Inc.
Address City IN Zip: 402 N. Sheridan, South Bend, IN 46619
Operation Permit: T141-7805-00058
Plt ID: 141-00058
Reviewer: Bryan Sheets
Date: 3/10/98

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Champion Concourse	7.70	78.40%	0.0%	78.4%	0.0%	14.30%	0.00030	101.250	6.04	6.04	0.18	4.40	0.80	0.06	42.22	75%
Color TDST Lacquer Toner	7.65	78.90%	0.0%	78.9%	0.0%	14.60%	0.00130	101.250	6.04	6.04	0.79	19.07	3.48	0.23	41.34	75%
K & K Color Lacquer	7.66	78.90%	0.0%	78.9%	0.0%	14.60%	0.00010	101.250	6.04	6.04	0.06	1.47	0.27	0.02	41.40	75%
Rustic Walnut Lacquer	8.74	61.60%	0.0%	61.6%	0.0%	23.70%	0.00050	101.250	5.38	5.38	0.27	6.54	1.19	0.19	22.72	75%
TDSW Color Lacquer	7.67	78.60%	0.0%	78.6%	0.0%	14.70%	0.00040	101.250	6.03	6.03	0.24	5.86	1.07	0.07	41.01	75%
Mapledoor E/Coat Lacquer	8.98	60.10%	0.0%	60.1%	0.0%	23.50%	0.00350	101.250	5.40	5.40	1.91	45.90	8.38	1.39	22.97	75%
TDSR Color Lacquer	7.69	78.30%	0.0%	78.3%	0.0%	14.80%	0.00020	101.250	6.02	6.02	0.12	2.93	0.53	0.04	40.68	75%
Gloss T/Coat Lacquer	7.68	79.10%	0.0%	79.1%	0.0%	14.30%	0.00760	101.250	6.07	6.07	4.67	112.19	20.47	1.35	42.48	75%
TDSB Color Lacquer	7.66	78.70%	0.0%	78.7%	0.0%	14.70%	0.00380	101.250	6.03	6.03	2.32	55.67	10.16	0.69	41.01	75%
Crown Brown Lacquer	7.67	78.60%	0.0%	78.6%	0.0%	14.70%	0.00060	101.250	6.03	6.03	0.37	8.79	1.60	0.11	41.01	75%
Light Mahogany Toner	7.67	78.20%	0.0%	78.2%	0.0%	15.20%	0.00060	101.250	6.00	6.00	0.36	8.74	1.60	0.11	39.46	75%
Light Oak G.C Lacquer	9.61	52.50%	0.0%	52.5%	0.0%	27.70%	0.00030	101.250	5.05	5.05	0.15	3.68	0.67	0.15	18.21	75%
White G. C. Lacquer	9.73	52.50%	0.0%	52.5%	0.0%	28.30%	0.00130	101.250	5.11	5.11	0.67	16.14	2.94	0.67	18.05	75%
Blush White G.C. Lacquer	9.28	55.10%	0.0%	55.1%	0.0%	26.80%	0.00050	101.250	5.11	5.11	0.26	6.21	1.13	0.23	19.08	75%
Lacquer Thinner	7.07	100.00%	0.0%	100.0%	0.0%	0.00%	0.00600	101.250	7.07	7.07	4.30	103.08	18.81	0.00	ERR	75%

State Potential Emissions

Add worst case coating to all solvents

8.97

215.27

39.29

1.39

x (1 - 0.95) due to dry filters
0.07

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used