



b. The affected booth is subject to 35 IAC 212.321(a), which provides that the Permittee shall not cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

c. The affected booth is subject to 35 IAC 218.204(1), which provides that:

i. Wood furniture sealers and topcoats must comply with the limitations specified below [35 IAC 218.204(1)(2)]:

	<u>kg VOM/ kg solids</u>	<u>lb VOM/ lb solids</u>
Topcoat	0.8	0.8
Sealers and Topcoats with the following limits:		
Non-Acid Cured Alkyd Amino Vinyl Sealer	1.9	1.9
Non-Acid Cured Alkyd Amino Conversion Varnish	1.8	1.8
Acid-Cured Alkyd Amino Vinyl Sealer	2.3	2.3
Acid-Cured Alkyd Amino Conversion Varnish	2.0	2.0

ii. Other wood furniture coating limitations [35 IAC 218.204(1)(3)]:

	<u>kg/l</u>	<u>lb/gal</u>
Opaque Stain	0.56	4.7
Non-Topcoat Pigmented Coat	0.60	5.0
Repair Coat	0.67	5.6
Semi-Transparent Stain	0.79	6.6
Wash Coat	0.73	6.1

iii. Other wood furniture coating requirements:

- A. The Permittee shall not use strippable spray booth coatings containing more than 0.8 kg VOM/kg solids (0.8 lb VOM/lb solids), as applied [35 IAC 218.204(1)(4)(A)].
- B. The Permittee shall use an initial coating which complies with the limitations of 35 IAC 218.204(1)(2)(A) or (B). The viscosity of the coating in each reservoir shall always be greater than or equal to the viscosity of the initial coating in the reservoir. The Permittee shall:

Monitor the viscosity of the coating in the reservoir with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added [35 IAC 218.204(1)(4)(c)];

1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected booth not being subject to 35 IAC 218 Subpart PP, Fabricated Product Manufacturing Processes, because the affected booth does not meet the applicability of 35 IAC 218.920(a) and (b). In particular, the affected booth has:
  - i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and
  - ii. VOM emissions limited to less than 90.7 Mg (100 tons) per calendar year in the absence of

air pollution control equipment, through production or capacity limitations contained in a federally enforceable permit or SIP revision.

- b. This permit is issued based on the affected booth not being subject to 40 CFR Part 63, Subpart JJ, because the affected booth is located at a source that is classified as an area source for hazardous air pollutants.
- c. This permit is issued based on the affected booth not being subject to 35 IAC 218, Subpart G, because the affected booth is required to meet 35 IAC 218.204(1) [35 IAC 218.209].

1.1.5 Operational and Production Limits and Work Practices

- a. Spray booth cleaning. The Permittee shall not use compounds containing more than 8.0 percent, by weight, of VOM for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, and metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating [35 IAC 218.217(a)].
- b. Cleaning and storage requirements. The Permittee shall [35 IAC 218.217(b)]:
  - i. Keep, store, and dispose of all coating, cleaning, and washoff materials in closed containers;
  - ii. Pump or drain all organic solvent used for line cleaning into closed containers;
  - iii. Collect all organic solvent used to clean spray guns in closed containers; and
  - iv. Control emissions from washoff operations by using closed tanks.
- c. Application equipment requirements. The Permittee shall not use conventional air spray guns to apply coating materials to wood furniture except for the following circumstances [35 IAC 218.217(c)]:

- i. To apply coating materials that have a VOM content no greater than 1.0 kg VOM/kg solids (1.0 lb VOM/lb solids), as applied;
- ii. For repair coating under the following circumstances:
  - A. The coating materials are applied after the completion of the coating operation; or
  - B. The coating materials are applied after the stain and before any other type of coating material is applied, and the coating materials are applied from a container that has a volume of no more than 2.0 gallons; or
- iii. If the spray gun is aimed and triggered automatically, rather than manually.

1.1.6 Emission Limitations

The affected booth is subject to the following:

- a. Emissions from wood furniture spray booth No. 12, border paint booth No. 8, and UV coating line No. 10, and glue spray booth No. 11 shall not exceed the following limits:

VOM Emissions	
<u>(Ton/Month)</u>	<u>(Ton/Year)</u>
2.4	24.9

These limits are based on the maximum material usage and the maximum VOM content of each material.

- b. Emissions from the wood furniture spray booth No. 12, paint spray booths 1-6, the 3 UV booths, and all gluing operations including all cleanup emissions associated with these processes, shall not exceed the following limits:

VOM Emissions
<u>(Ton/Year)</u>

99.9

These limits are based on the maximum coating usage and the maximum VOM content of the coating.

- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- d. The emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs.
- e. The source has addressed the applicability and compliance of 35 IAC Part 203, Major Stationary Sources Construction and Modification. These limits continue to ensure that the construction and/or modification addressed in this construction permit does not constitute a new major source or major modification pursuant to these rules.

1.1.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a)]

- a. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected booth (wood, metal, fabric, and vinyl) shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a), 218.208, and 218.211(a).
  - i. The VOM content of representative coatings "as applied" on the affected booth shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a)
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 1.1.9(b) directly reflect the application of such material and separately account for any additions of solvent.

[35 IAC 218.105(a), 218.208, and 218.211(a)]

1.1.8 Monitoring Requirements

The Permittee shall visually inspect the filters and check for pressure drop on a regular basis in order to ensure proper operation of the filters and the need for replacement.

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected booth to demonstrate compliance with Conditions of this section:

- a. The Permittee shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years [35 IAC 218.211(c)(2)]:
  - i. The name and identification number of each coating as applied on each coating line;
  - ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line;
  - iii. For coating lines subject to the limitations of 35 IAC 218.204(1)(2)(A) or (B), the weight of VOM per weight of solids in each coating as applied each day on each coating line and certified product data sheets for each coating; and
  - iv. For wood furniture coating spray booths subject to the limitations of 35 IAC 218.204(1)(4)(A), the weight of VOM per weight of solids in each strippable spray booth coating as applied each day on each spray booth and certified product data sheets for each coating.
- b. Records of the testing of VOM and HAP content (wt%) of each coating and cleaning solvent as tested pursuant to the conditions of this section, which include the following:
  - i. Identification of material tested,
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and

- iv. Person performing analysis.
- c. Reservoir viscosity and the amount and weight of VOM per weight of solids of coating and solvent each time coating or solvent is added. These records shall be maintained for a period of three years [35 IAC 218.204(1)(4)(c)(ii and iii)].
- d. Volume of each coating and cleaning material used (gallons/month and gallons/year);
- e. Amount of VOM waste that is collected and shipped off-site (tons/month and tons/year) and the percent VOM in the waste (wt percent);
- f. VOM emissions from wood furniture spray booth No. 12, border paint booth No. 8, and UV coating line No. 10, and glue spray booth No. 11 (tons/month and tons/year);
- g. VOM emissions from the wood furniture spray booth No. 12, paint spray booths 1-6, the 3 UV booths, and all gluing operations including all cleanup emissions associated with these processes (tons/month and tons/year);
- h. Individual HAP emissions and the combination of all such HAP emissions from all emission units at the source, combined (tons/month and tons/year); and
- i. Results of filter inspections and dates of replacements made.

1.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of the affected glue spray booth with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions of VOM in excess of the limits specified in Condition 1.1.6.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected booth without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction

permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Utilize any coating, thinner, or cleaning solvent in the paint booth with various VOM contents provided that the materials are tested in accordance with the conditions of this section, the emission limitations in Condition 1.1.6 are not exceeded and the affected booth remains in compliance with 35 IAC 218.204.

1.1.12 Compliance Procedures

- a. To determine compliance with Conditions 1.1.3 and 1.1.6, VOM emissions from each coating shall be calculated based on the recordkeeping requirements in Condition 1.1.9 and by the use of either testing as required in Condition 1.1.7 or by use of the formulae listed below:

$$\text{Coating VOM Emissions} = V \times D \times U$$

Where:

V = Percent VOM in the coating (wt. %)

D = Overall coating density (lb/gal)

U = Overall coating usage (gal/mo and gal/yr)

$$\text{Cleaning Solvent VOM Emissions} = V_1 \times D_1 \times U_1$$

Where:

V<sub>1</sub> = Percent VOM in the cleaning solvent (wt. %)

D<sub>1</sub> = Overall cleaning solvent density (lb/gal)

U<sub>1</sub> = Overall cleaning solvent usage (gal/mo and gal/yr)

$$\text{VOM Waste} = \text{lb waste} \times \text{percent VOM in the waste (wt. \%)}$$

$$\text{Total VOM Emissions} = \text{Coating Emissions} + \text{Cleaning Solvent Emissions} - \text{VOM Waste}$$

2. The affected booth may be operated for a period of 180 days under this construction permit.

Please note that the Permittee should seek to amend their CAAPP permit to include the construction and/or modification covered under this permit through the administrative amendment process by submitting an application that includes the information contained in form 273-CAAPP. This application

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must also identify and address any changes from the associated construction permit application. Note that information previously submitted in the construction permit application may be incorporated by reference into the application to amend the CAAPP permit. The Permittee must also provide updated information on fees as contained in form 292-CAAPP, "Fee Determination for CAAPP Permit.

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

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

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cc: Region 1