

AIR EMISSION PERMIT NO. 13900113-003
Major Amendment

IS ISSUED TO

ELKAY Manufacturing

MEDALLION CABINETRY INC. - SHAKOPEE

4571 Valley Industrial Boulevard South
Shakopee, Scott County, MN 55379

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the following permit application(s):

| Permit Type | Application Date | Issue Date | Action |
|---------------------------------|-------------------------|-------------------|---------------|
| Total Facility Operating Permit | January, 07, 2005 | July 18, 2005 | 001 |
| Major Amendment | March 12, 2008 | July 1, 2008 | 002 |
| Major Amendment | March 2, 2009 | See Below | 003 |

This permit amendment supersedes Air Emission Permit No. 13900113-002, and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/Limits to Avoid NSR

Issue Date: July 18, 2005

Authorization to Construct and Operate Issuance Date: June 1, 2009

Major Amendment Issue Date: June 9, 2009

Expiration: July 18, 2010
Title I Conditions do not expire.

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for Paul Eger
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

| | |
|--------------------|----------------|
| Metro Area | 651-296-6300 |
| Outside Metro Area | 1-800-657-3864 |
| TTY | 651-282-5332 |

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Medallion Cabinetry, Inc. is a manufacturer of finished kitchen cabinets. The main processes that generate emissions are surface coating and combustion of natural gas. The coating operations emit volatile organic compounds (VOCs), several hazardous air pollutants (HAPs), and particulate matter and particulate matter less than 10 microns (PM/PM₁₀). The PM/PM₁₀ emissions from the paint booths are controlled by high-efficiency pleated panel filters.

AMENDMENT DESCRIPTION:

This permit amendment is a major amendment for the addition of two (2) spray paint booths (EU 023 and EU 024). The 16-foot wide manual spray booths use the same spray guns as specified for the existing booths. Materials sprayed in these booths will include all present and future stains, as well as enamel paint colors being introduced to the market. The new booths will comply with the existing VOC and PM/PM₁₀ emission limits of 95 tons per year, respectively, for the spray coating operations.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item:**Total Facility**

| What to do | Why to do it |
|---|--|
| This permit establishes limits on the facility to keep it a minor source under New Source Review. The Permittee cannot make any change at the source that would make the source a major source under New Source Review until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments. | Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Insignificant Activities: The Permittee shall evaluate the emissions from changes made under Minn. R. 7007.1300 PRIOR TO MAKING THE CHANGE. The Permittee shall not make any change that causes emissions to exceed permit thresholds in Minn. R. ch. 7007 without first obtaining a major permit amendment. | Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| OPERATIONAL REQUIREMENTS | hdr |
| Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. | Minn. R. 7011.0020 |
| Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. | Minn. R. 7007.0800, subps. 2 & 16(J) |
| Operation and Maintenance Plan: Retain at the stationary source an O&M plan for all air pollution control equipment. At a minimum, the O&M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. | Minn. R. 7007.0800, subps. 14 & 16(J) |
| Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. | Minn. R. 7019.1000, subp. 4 |
| Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. | Minn. R. 7011.0150 |
| Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. | Minn. R. 7030.0010 - 7030.0080 |
| Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). | Minn. R. 7007.0800, subp. 9(A) |
| The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. | Minn. R. 7007.0800, subp. 16 |
| MONITORING REQUIREMENTS | hdr |
| Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment. | Minn. R. 7007.0800, subp. 4(D) |
| Operation of Monitoring Equipment: Monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. | Minn. R. 7007.0800, subp. 4(D) |
| RECORDKEEPING | hdr |
| Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). | Minn. R. 7007.0800, subp. 5(C) |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

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|---|---|
| Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes. | Minn. R. 7007.0800, subp. 5(B) |
| If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the office of the stationary source for all other years. The records may be maintained in either electronic or paper format. | Minn. R. 7007.1200, subp. 4 |
| REPORTING/SUBMITTALS | hdr |
| The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA. | 40 CFR pt. 50; Minn. Stat. Sec. 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2, & 4; Minn. R. 7009.0010 - 7009.0080 |
| Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. | Minn. R. 7019.1000, subp. 3 |
| Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. | Minn. R. 7019.1000, subp. 2 |
| Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. | Minn. R. 7019.1000, subp. 1 |
| Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. The cause of the deviation; 2. The exact dates of the period of the deviation, if the deviation has been corrected; 3. Whether or not the deviation has been corrected; 4. The anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. | Minn. R. 7019.1000, subp. 1 |
| Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 - 7007.1500. Submittal dates vary, depending on the type of amendment needed. | Minn. R. 7007.1150 - 7007.1500 |
| Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). | Minn. R. 7007.1400, subp. 1(H) |
| Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner. | Minn. R. 7019.3000 - 7019.3100 |
| Emission Fees: due 60 days after receipt of an MPCA bill. | Minn. R. 7002.0005 - 7002.0095 |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Subject Item: GP 001 NESHAP Sources

Associated Items:

- CE 001 Mat or Panel Filter
- CE 002 Mat or Panel Filter
- CE 003 Mat or Panel Filter
- CE 006 Mat or Panel Filter
- CE 007 Mat or Panel Filter
- CE 008 Mat or Panel Filter
- CE 009 Mat or Panel Filter
- EU 001 Stain Spray Booth
- EU 002 Sealer Spray Booth
- EU 003 Topcoat Spray Booth
- EU 021 Research Booth
- EU 022 Automated Spray Booth
- EU 023 NGR Booth
- EU 024 Glaze Booth
- SV 001 Stain Spray Booth
- SV 002 Sealer Spray Booth
- SV 003 Topcoat Spray Booth
- SV 005 Research Booth
- SV 006 Automated Spray Booth
- SV 007 NGR Booth
- SV 008 Glaze Booth

| What to do | Why to do it |
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| EMISSION LIMITS AND OPERATING REQUIREMENTS | hdr |
| Volatile Hazardous Air Pollutant (VHAP) means any volatile hazardous air pollutant listed in Table 2 of 40 CFR pt. 63, subp. JJ. | 40 CFR Section 63.801; Table 2 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340 |
| HAPs - Volatile: less than or equal to 0.80 kilograms/kilograms (kg VHAP/kg solids) average content (E) of all finishing materials, including but not limited to, stains, basecoats, washcoats, enamels, sealers and topcoats, as applied. "E" shall be calculated using the equation below. | 40 CFR Section 63.802(b)(1); Table 3 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340 |
| HAPs - Volatile: less than or equal to 0.20 kilograms/kilograms (kg VHAP/kg solids) for each contact adhesive, as applied. | 40 CFR Sections 63.802(b)(2) & 63.804(e)(1); Minn. R. 7011.7340 |
| HAPs - Volatile: less than or equal to 0.80 kilograms/kilograms (kg VOC/kg solids) for each strippable spray booth coating, as applied. | 40 CFR Section 63.802(b)(3); Minn. R. 7011.7340 |
| Work Practice Implementation Plan (WPIP): Maintain and adhere to the WPIP which defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practice standards presented in paragraphs (b)-(l) of Section 63.803. These standards are included in Appendix I of this permit. The plan shall be available upon request by the Administrator and shall be revised upon request by the Administrator. | 40 CFR Section 63.803(a); Minn. R. 7011.7340 |
| MONITORING AND RECORDKEEPING | hdr |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

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| <p>Compliance Procedure for Finishing Materials: Calculate the average VHAP content (E) using the following equation:</p> $E = (Mc_1Cc_1 + \dots + Mc_nCc_n + S_1W_1 + \dots + S_nW_n)/(Mc_1 + \dots + Mc_n)$ <p>Where:</p> <p>n = 1, 2, 3, ... (first finishing material, second finishing material, ... etc.)</p> <p>Mc = the mass of solids in finishing material(c), in kg</p> <p>Cc = the VHAP content of finishing material(c), in kg of VHAP per kg of coating solids (lb VHAP/lb solids), as supplied</p> <p>S = the VHAP content of solvent, in weight fraction, added to finishing materials</p> <p>W = amount of solvent, in kg (lb), added to finishing materials during the monthly averaging period.</p> | 40 CFR Section 63.804(d)(1); Minn. R. 7011.7340 |
| Determine the VHAP content for each finishing material, thinner, contact adhesive, and strippable spray booth coating as specified in 40 CFR 63.805(a). This information shall be found on the Certified Product Data Sheet (CPDS). | 40 CFR Section 63.805(a); Minn. R. 7011.7340 |
| <p>Recordkeeping: The Permittee shall maintain the following records onsite:</p> <ol style="list-style-type: none"> 1. A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating; 2. A copy of the averaging calculation for each month following the initial startup, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E; 3. The VHAP content, in kgVHAP/kg solids, as applied of each finishing material and contact adhesive; 4. The VOC content, in kg VOC/kg solids, as applied, of each strippable booth coating; and 5. The WPIP and all records associated with fulfilling the requirements of the WPIP. | 40 CFR Sections 63.806(b), (c), & (e); Minn. R. 7011.7340 |
| <p>The minimum WPIP onsite record content shall include:</p> <ol style="list-style-type: none"> 1. Records demonstrating that the operator training program is in place; 2. Records collected in accordance with the inspection and maintenance program; 3. Records associated with the cleaning solvent accounting system; 4. Records associated with the limitation on the use of conventional air spray guns showing total finishing material use and the percentage of finishing materials applied with this type of spray gun for each semiannual period; and 5. Copies of documentation such as logs developed to demonstrate that the other provisions of the WPIP are followed. | 40 CFR Section 63.806(e); Minn. R. 7011.7340 |
| The Permittee shall maintain records of all reports submitted to the Agency including the supporting materials. | 40 CFR Sections 63.806(h) & (i); Minn. R. 7011.7340 |
| The Permittee shall maintain all records for a period of 5 years and, at a minimum, the most recent 2 years of data shall be retained on site. The records including all required reports shall be in a form suitable and readily available for expeditious inspection and review. | 40 CFR Section 63.806(j); 40 CFR Section 63.10(b)(1); Minn. R. 7011.7340 |
| The Compliance Date is the date of startup of this facility. | 40 CFR Section 63.800(f); Minn. R. 7011.7340 |
| Initial Compliance Status Report: The Permittee shall submit the compliance status report required by 40 CFR Section 63.9(h) of Subpart A (General Provisions) no later than 60 days after the compliance date. | 40 CFR Section 63.807(b); Minn. R. 7011.7340 |
| <p>Contents of the Initial Compliance Status Report:</p> <ol style="list-style-type: none"> 1. The results of the averaging calculation for the first month, the calculation shall include data for the entire month in which the compliance date falls; 2. A statement that compliant contact adhesives are being used by the facility; 3. A statement that compliant strippable spray booth coatings are being used by the facility; 4. A statement that the WPIP has been developed and procedures have been established for implementing the provisions of the plan. | 40 CFR Sections 63.804(f)(1), (5), (7) & (8); Minn. R. 7011.7340 |
| Semiannual Report: The Permittee shall submit a semiannual report covering six consecutive months of manufacturing operations. The first report is due 30 calendar days after the end of the first six month period following the compliance date. Subsequent reports are due 30 days after the end of each six month reporting period. | 40 CFR Section 63.807(c); Minn. R. 7011.7340 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Medallion Cabinetry Inc - Shakopee
Permit Number: 13900113 - 003

| | |
|--|---|
| Contents of the Semiannual Report. The semiannual report shall contain a compliance certification as required by 40 CFR Section 63.807(c), signed by a responsible official of the facility, which contains the results of the averaging calculation for each month within each semiannual period, and a statement that: 1. The value of (E), calculated above is no greater than 0.80 for any month; 2. Compliant contact adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact adhesives were used; 3. Compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used; and 4. The WPIP is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day they weren't implemented. | 40 CFR Section 63.804(g)(1), (5), (7), & (8); Minn. R. 7011.7340 |
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-6**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Subject Item: GP 002 Coating Operations

Associated Items:

- CE 001 Mat or Panel Filter
- CE 002 Mat or Panel Filter
- CE 003 Mat or Panel Filter
- CE 006 Mat or Panel Filter
- CE 007 Mat or Panel Filter
- CE 008 Mat or Panel Filter
- CE 009 Mat or Panel Filter
- EU 001 Stain Spray Booth
- EU 002 Sealer Spray Booth
- EU 003 Topcoat Spray Booth
- EU 021 Research Booth
- EU 022 Automated Spray Booth
- EU 023 NGR Booth
- EU 024 Glaze Booth
- SV 001 Stain Spray Booth
- SV 002 Sealer Spray Booth
- SV 003 Topcoat Spray Booth
- SV 005 Research Booth
- SV 006 Automated Spray Booth
- SV 007 NGR Booth
- SV 008 Glaze Booth

| What to do | Why to do it |
|---|---|
| EMISSION LIMITS | hdr |
| Volatile Organic Compounds: less than or equal to 95.0 tons/year using 12-month Rolling Sum . All sources emitting VOCs, other than fuel combustion, shall be included in the 12-month rolling sum calculation. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Total Particulate Matter: less than or equal to 95.0 tons/year using 12-month Rolling Sum | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies to each emission unit individually, except EU 023 & EU 024 which are subject to 0.07 gr/dscf. | Minn. R. 7011.0715, subp. 1(A) |
| Opacity: less than or equal to 20 percent opacity | Minn. R. 7011.0715, subp. 1(B) |
| OPERATING REQUIREMENTS | hdr |
| The Permittee shall operate no more than the maximum number of guns in each spray booth as listed in Appendix III of this permit. | Minn. R. 7011.0715 |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

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|---|--|
| <p>Pre-authorized Changes: The Permittee may replace existing spray guns or add the authorized second spray guns, per booth, as long as all guns meet the following conditions:</p> <ol style="list-style-type: none"> 1. The gun capacity of any and all guns used in a given booth is less than the capacity listed in Appendix III of this permit for that booth; 2. They are used in a spray booth that is controlled by equipment meeting the requirements of GP 003; and 3. New or modified guns must have a transfer efficiency equal to or better than airless technology (75% minimum manufacturer specified transfer efficiency). <p>The Permittee may change to different coating materials and formulations as long as all coatings meet the requirements of GP 001 and the content assumptions used in the Technical Support Document for this permit.</p> <p>If a proposed change triggers an applicable requirement not listed in this permit, the change must go through the appropriate procedure in Minn. R. ch. 7007.</p> | <p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p> |
| <p>All VOC-emitting equipment at the Facility is subject to the 95.0 tpy limit. If the Permittee replaces any existing VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of GP 001 and GP 002. Prior to making such a change, the Permittee shall determine if an amendment is required under Minn. R. 7007.1450 or 7007.1500 and shall apply for and obtain the appropriate amendment. The Permittee is not required to repeat VOC calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.</p> | <p>(continued) Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p> |
| MONITORING AND RECORDKEEPING | hdr |
| <p>Material Content: VOC, HAPs, and Solids (PM and PM<10 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS), CPDS, or equivalent document provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS, CPDS or equivalent document.</p> | Minn. R. 7007.0800, subps. 4 & 5 |
| <p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <ol style="list-style-type: none"> 1. The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water. 2. The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials. | Minn. R. 7007.0800, subps. 4 & 5 |
| <p>VOC Recordkeeping: If the Permittee elects to obtain credit for VOC contained in shipped waste, calculate and record mass of shipped VOCs using quantities disbursed from inventory and quantities in recovered materials.</p> | <p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p> |
| <p>Definition of Accounting Period: The VOC and PM limits are based on 12 accounting periods in a calendar year. These periods can vary from 3 to 5 weeks each. The Permittee determines the number of weeks in each accounting period prior to the beginning of the calendar year. The determination of how many weeks are in each accounting period, including starting and ending dates, shall be included in the Annual Report that is due January 30th of each year.</p> | <p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p> |
| <p>Daily Recordkeeping -- VOC: On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coatings and other VOC and solids containing materials used at the facility. This shall be based on written usage logs or flowmeters.</p> | <p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p> |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-8**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

| | |
|---|---|
| Accounting Period Recordkeeping -- VOC Emissions: By the 15th day of the accounting period, the Permittee shall calculate and record the following: 1. The total VOC shipped in waste for the previous accounting period, using billing records and analyses or MSDS as appropriate. 2. The total VOC dispensed for the previous accounting period by summing all the daily records for the previous accounting period. 3. The VOC emissions for the previous accounting period by subtracting VOC shipped in waste (item 1) from VOC dispensed (item 2). 4. The 12 accounting period rolling sum VOC emissions for the previous 12 accounting periods by adding the monthly VOC emissions data for the previous 12 accounting periods. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5 |
| Monthly Calculation -- VOC Emissions. The Permittee shall calculate VOC emissions using the following equations: VOC (tons/month) = V - W V = (A1 x B1) + (A2 x B2) + (A3 x B3) + ... W = (C1 x D1) + (C2 x D2) + (C3 x D3) + ... | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Where: V = total VOC used in tons/month; A# = amount of each VOC containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. | (continued) Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Daily Recordkeeping -- PM: On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coating operations PM-emitting, solids containing materials used at the facility. This shall be based on written usage logs or flowmeters and MSDS/CPDS records. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5 |
| Accounting Period Recordkeeping -- PM Emissions: By the 15th day of the accounting period, the Permittee shall calculate and record the following: 1. The total PM dispensed for the previous accounting period by adding all the daily records for the previous accounting period. 2. The 12-accounting-period rolling sum PM emissions for the previous 12 accounting periods by adding the monthly PM emissions data for the previous 12 accounting periods. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5 |
| Monthly Calculation -- Solids, PM, and PM10 Emissions: The Permittee shall calculate emissions from the spray booths using the following equations: PM10 (tons/month) = S(1-CE)(1-TE) - W S = (A1 x B1) + (A2 x B2) + (A3 x B3) + ... W = (C1 x D1) + (C2 x D2) + (C3 x D3) + ... | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Where: S = total solids used in tons/month; CE = overall control efficiency, as a fraction. This shall be 0.74 for all spray booths; TE = transfer efficiency, as a fraction. This shall be 0.75, unless otherwise approved by the MPCA in writing. A# = amount of each solids containing material sprayed, in tons/month; B# = weight percent solids in A#, as a fraction; W = the amount of solids shipped in waste, in tons/month; C# = amount, in tons/month, of each solids containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of solids in C#, as a fraction. | (continued) Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Recordkeeping of Equipment and Coating Changes: The Permittee shall keep records of spray guns that are added or replaced. This record shall be updated with each addition or replacement. The record shall include the date the spray gun was added or replaced, the manufacturer and model number, the spray technology, the manufacturer's specified transfer efficiency (which must be a minimum of 75%), the spray capacity in gallons per hour, and the emission unit number (EU) of the spray booth where the gun will be used. The Permittee shall keep a log of all coating materials and their VOC and Solids (PM) contents, as determined by the Materials Content requirement of this permit. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5 |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Subject Item: GP 003 Panel Filter Requirements**Associated Items:** CE 001 Mat or Panel Filter

CE 002 Mat or Panel Filter

CE 003 Mat or Panel Filter

CE 006 Mat or Panel Filter

CE 007 Mat or Panel Filter

CE 008 Mat or Panel Filter

CE 009 Mat or Panel Filter

| What to do | Why to do it |
|--|--|
| Total Particulate Matter: greater than or equal to 73.6 percent control efficiency (80% capture x 92% removal efficiency of the panel filter). Operate & maintain control equipment such that it achieves the specified overall control efficiency. This requirement applies to each emission unit individually. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0715 |
| Particulate Matter < 10 micron: greater than or equal to 73.6 percent control efficiency (80% capture x 92% removal efficiency of the panel filter). Operate & maintain control equipment such that it achieves the specified overall control efficiency. This requirement applies to each emission unit individually. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0715 |
| Operate and maintain panel filters according to the manufacturer's specifications. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0715 |
| The Permittee shall operate and maintain the filter at all times that any emission unit controlled by the filter is in operation. The Permittee shall document periods of non-operation of the control equipment. | Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14 |
| Periodic Inspections: Once each operating day, the Permittee must visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes, and any other matter that may affect the filter's performance. Records of these inspections must be maintained. At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. | Minn. R. 7007.0800, subps. 4, 5 & 14 |
| Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - Visible emissions are observed; or - The filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. | Minn. R. 7007.0800, subps. 4, 5, & 14 |
| The Permittee shall operate and maintain the filter in accordance with the O&M Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff. | Minn. R. 7007.0800, subp. 14 |

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10**

06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Subject Item: GP 004 Makeup air heating units**Associated Items:** EU 004 Makeup air heating unit

EU 105 Makeup air heating unit #2

| What to do | Why to do it |
|---|-----------------------------|
| Fuel: Natural gas only | Minn. R. 7007.0800, subp. 2 |
| Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . (This is met through the limit on type of fuel use to natural gas only.) | Minn. R. 7011.0515, subp. 1 |
| Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60 percent. | Minn. R. 7011.0515, subp. 2 |

TABLE B: SUBMITTALS**B-1** 06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Medallion Cabinetry Inc - Shakopee
Permit Number: 13900113 - 003

| What to send | When to send | Portion of Facility Affected |
|-----------------------------------|---|------------------------------|
| Application for Permit Reissuance | due 180 days before expiration of Existing Permit | Total Facility |
| Initial Compliance Status Report | due 60 days after Initial Startup | GP001 |

TABLE B: RECURRENT SUBMITTALS**B-3** 06/09/09

Facility Name: Medallion Cabinetry Inc - Shakopee

Permit Number: 13900113 - 003

| What to send | When to send | Portion of Facility Affected |
|------------------------------|---|------------------------------|
| Compliance Status Report | due 30 days after end of each calendar half-year starting 07/18/2005. The Permittee shall submit a semiannual Continuous Compliance Report. See GP 001 for the minimum contents for the report. The certification must be signed by a responsible official of the facility. If the Permittee is out of compliance with any of the requirements in the NESHAP, the Permittee shall state the measures taken to bring the facility back into compliance. | GP001 |
| Semiannual Deviations Report | due 30 days after end of each calendar half-year starting 07/18/2005. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations. | Total Facility |
| Annual Report | due 30 days after end of each calendar year starting 07/18/2005. The Permittee shall submit an annual report by January 30th that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new or replaced units or control devices. The report shall document the VOC and PM 12-month rolling sum calculations for the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review. | Total Facility |
| Compliance Certification | due 30 days after end of each calendar year starting 07/18/2005 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. | Total Facility |

APPENDIX I
Facility Name: Medallion Cabinetry, Inc.
Permit Number: 13900113-003

Work Practice Implementation Plan

At a minimum, a work practice implementation plan (WPIP) shall contain the following:

- A. Operator training course - the Permittee shall train all personnel involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of the MACT standard. Those personnel hired before the compliance date shall be trained within six months of the compliance date and new personnel shall be trained prior to performing their job duties. At a minimum all personnel shall receive annual refresher training. The Permittee shall maintain a copy of the program with the WPIP, each with minimum of following information:
- 1) a list of all current personnel by name and job description;
 - 2) outline of all training materials;
 - 3) lesson plans which shall include, but not limited to: appropriate application techniques, cleaning and washoff procedures, equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
 - 4) documentation of successful completion of training.
- B. Inspection and maintenance plan - A written leak inspection and maintenance plan shall be followed. At a minimum this plan shall specify the following:
- 1) a visual inspection frequency of at least once per month for all equipment used to transfer or apply coating, adhesives, or organic solvents;
 - 2) an inspection schedule;
 - 3) methods for documenting the date and results of each inspection and any repairs that were made; and
 - 4) the timeframe between identifying the leak and making the repair. A first attempt at repair and final repairs shall be made within 5 and 15 calendar days after the leak is detected respectively. If new equipment must be purchased, the leak must be repaired within three months of discovery.
- C. Cleaning and washoff solvent accounting system - An accounting system shall be maintained to record the following:
- 1) the quantities and types of organic solvent used/month for cleaning and washoff operations;
 - 2) the number of pieces washed off and the reason for the washoff; and
 - 3) the quantity of spent solvent from each washoff and cleaning operation and whether it is recycled onsite or disposed offsite.
- D. Chemical composition of cleaning and washoff solvents - The facility is prohibited from using cleaning or washoff solvents containing the chemicals listed in Table 4 of 40 CFR pt. 63, subp. JJ, in concentrations subject to MSDS reporting as required by OSHA.
- E. Spray booth cleaning - VOC content of cleaning spray booth components shall not exceed 8 percent by weight. This limit does not apply to cleaning conveyors, continuous coaters and total enclosures, or metal filters. If the Permittee is replacing the spray booth coating or other protective material used to cover the booth, no more than 1 gallon of organic solvent per booth to prepare the surface of the booth prior to applying the booth coating.
- F. Storage requirements - use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

APPENDIX I
Facility Name: Medallion Cabinetry, Inc.
Permit Number: 13900113-003

- G. Application equipment requirements - A WPIP shall specify when conventional air spray guns are allowed to be used in application of finishing materials as outlined in 40 CFR Section 63.803(h).
- H. Line Cleaning - pump or drain all organic solvent used for line cleaning into a normally closed containers.
- I. Gun cleaning - collect all organic solvent used to clean spray guns into a normally closed container.
- J. Washoff operations - use normally closed tanks for washoff and minimizing dripping by tilting or rotating the part to drain as much solvent as possible.
- K. Formulation assessment plan (FAP) for finishing operations - prepare and maintain with the WPIP a formulation assessment plan only if the following chemicals are being used in finishing operations: dimethyl formamide, formaldehyde, methylene chloride, 2-nitropropane, isophorone, styrene monomer, phenol, diethanolamine, 2-methoxyethanol, 2-ethoxyethyl acetate. A FAP shall be done in accordance with 40 CFR Section 63.803(l).

APPENDIX II
Facility Name: Medallion Cabinetry, Inc.
Permit Number: 13900113-003

Insignificant Activities and General Applicable Requirements

The table below lists the insignificant activities that are currently at the facility and their associated general applicable requirements.

| Minn. R. 7007.1300, subp. | Rule Description of the Activity | General Applicable Requirement |
|--------------------------------------|--|---|
| 3(A) | Fuel use: space heaters fueled by, kerosene, natural gas, or propane. <i>Medallion's current total capacity is 10.34 MMBtu/hr.</i> | Minn. R. 7011.0515 |
| 3(B)(2) | Furnaces, boilers, and incinerators: Fuel burning equipment with a capacity less than 500,000 Btu/hour but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 500,000 Btu per hour is less than or equal to 2,000,000 Btu/hour. <i>Medallion's current capacity is less than 2 MMBtu/hr.</i> | Minn. R. 7011.0515 |

Under Minn. R. 7007.1250, subp. 1(A), the Permittee may add insignificant activities to the stationary source throughout the term of the permit without getting permit amendments. Certain exclusions apply and are listed in Minn. R. 7007.1250, subp. 2. In addition, this permit specifically prohibits the Permittee from making any modifications that would make the source major under NSR. The following table is a listing of the insignificant activities that the Permittee is somewhat likely to add and their associated applicable requirements.

| Minn. R. 7007.1300, subp. | Rule Description of the Activity | General Applicable Requirement(s) |
|--------------------------------------|--|---|
| 3(B)(1) | Furnaces, boilers, and incinerators: 1. infrared electric ovens; and | Minn. R. 7011.0110 (opacity) |
| 3(H) | Miscellaneous: 4. brazing, soldering or welding equipment; 5. blueprint copiers and photographic processes; 8. cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners. | Minn. R. 7011.0715 (PM and opacity) Minn. R. 7011.0110 (opacity) Minn. R. 7011.0610 & Minn. R. 7011.0715 (PM and opacity) |
| 3(J) | Fugitive Emissions from unpaved roads and parking lots. | Minn. R. 7011.0150 (PM) |
| 4(B) | Emission units with potential emissions of less than 2.28 lb/hr of PM, PM ₁₀ , NO _x , SO ₂ , and VOCs. • Make-up Air Unit (EU 105) | |

APPENDIX III
Facility Name: Medallion Cabinetry Inc.
Permit Number: 13900113-003

Spray Gun Capacities

Any and all individual spray guns used in a spray booth are limited to the capacity given in the table below for the specified booth. The coating material used and the maximum number of guns operating at any given time are listed in the table below for the specified booth.

| Emission Unit | Individual Gun Capacity Limit (gallons/hour) | Coating Material | Maximum Number of Guns (Operating at any given time) |
|----------------------|---|--------------------------|---|
| EU 001 | 7.13 | Stain | 2 |
| EU 002 | 7.13 | Sealer | 1 |
| EU 003 | 7.13 | Topcoat | 1 |
| EU 021 | 5.60 | Various (Research Booth) | 1 |
| EU 022 | 7.01 | Automated Spray | 2 |
| EU 023 | 7.13 | NGR | 2 |
| EU 024 | 5.00 | Glaze | 1 |

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 13900113-002

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1 Applicant and Stationary Source Location:

| Applicant/Address | Stationary Source/Address (SIC Code: 2434) |
|---|--|
| Medallion Kitchens of Minnesota, Inc. One Medallion Way Waconia, MN 55387 | 4571 Valley Industrial Boulevard South Shakopee Scott County |
| Contact: Craig Fast | Phone: 952-442-6920 |

1.2 Description of the Facility

Medallion Cabinetry, Inc. is a manufacturer of finished kitchen cabinets. The facility manufactures wood cabinet parts, assembles the cabinets and then performs surface finishing operations, as per client requirements. The individual furniture components are purchased from outside sources. These parts are then refined by sawing and polishing to fit precisely in the piece of furniture being assembled. The sawing operations are intermittently performed and are controlled by fabric filters. The assembled furniture is then loaded onto a conveyor belt, which carries it through different stages of surface coating operations at the different spray booths. The coatings applied are stains, lacquers, and sealers. The finished products are allowed to fan dry, followed by assembly, packaging, warehouse storage, and shipping.

All manufacturing operations are performed within the confines of a single building. The normal operation schedule is eight hours per day, five days per week, and 52 weeks per year.

All heating for the facility is derived from one boiler, natural gas-fired make-up air units, and smaller natural gas fired heating units, which are considered insignificant emission units.

The main processes that generate emissions are surface coating and combustion of natural gas. The coating operations emit volatile organic compounds (VOCs), several hazardous air pollutants (HAPs), and particulate matter and particulate matter less than 10 microns (PM/PM10). The PM/PM10 emissions from the paint booths are controlled by high-efficiency pleated panel filters.

1.3 Description of the Activities Allowed by this Permit Action

This permit amendment is a major amendment for the addition of two (2) spray paint booths (EU 023 and EU 024). The 16-foot wide manual spray booths use the same spray guns as specified for the existing booths. Materials sprayed in these booths will include all present and future stains, as well as enamel paint colors being introduced to the market. The new booths will comply with the existing VOC and PM/PM10 emission limits of 95 tons per year, respectively, for the spray coating operations.

1.4 Facility Emissions:

Table 1. Title I Emissions Increase Summary (tpy)

| Pollutant | Emissions Increase from the Modification | Limited Emissions Increase from the Modification | PSD/112(g) Significant Thresholds for major sources | NSR/112(g) Review Required? |
|--------------------|--|--|---|-----------------------------|
| PM* | 78.5 | 78.5 | 250 | No |
| PM ₁₀ * | 78.5 | 78.5 | 250 | No |
| NO _x | 0.0 | 0.0 | 250 | No |
| SO ₂ | 0.0 | 0.0 | 250 | No |
| CO | 0.0 | 0.0 | 250 | No |
| Ozone (VOC)* | 1031 | 95 | 250 | No |
| Total HAPs | 395 | 95 | 10/25** | No |

* PM/PM₁₀, and VOCs from all the surface coating operations at this source will remain limited at 95 tpy each.

** Surface coating operations are regulated under 40 CFR pt. 63, Subpart JJ. Therefore, 112(g) review is not applicable.

Table 2. Total Facility Potential to Emit Summary (tpy)

| | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC | Single HAP | All HAPs |
|--|------|------------------|-----------------|-----------------|------|-------|---|----------|
| Total Facility Limited Potential Emissions | 95.3 | 95.3 | 0.02 | 2.52 | 2.12 | 95.2 | 95 | 95 |
| Total Facility Actual Emissions (2007) | 1.05 | 1.05 | 0.00 | 0.20 | 0.17 | 31.13 | HAPs not reported in emission inventory | |

Table 3. Facility Classification

| Classification | Major/Affected Source | Synthetic Minor | Minor |
|------------------------|-----------------------|--------------------------|-------|
| PSD | | VOC, PM/PM ₁₀ | |
| Part 70 Permit Program | HAP | | |
| Part 63 NESHAP | X | | |

2. Regulatory and/or Statutory Basis

New Source Review

The facility is a synthetic minor source under New Source Review. The facility has a surface coating VOC limit of 95 tons/yr. The equipment listed under the VOC limit is updated in this permit amendment.

Part 70 Permit Program

The facility will remain a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major source of HAPs. The facility's coating operations are subject to 40 CFR pt. 63, Subpart JJ (NESHAP for Wood Furniture Manufacturing Operations). No changes to the existing NESHAP permit terms are proposed except to update the equipment covered by the NESHAP requirements.

CAM Assurance Monitoring (CAM)

The uncontrolled PM/PM₁₀ emissions from the new spray booths (EU 023 and EU 024) are each less than the Part 70 major source thresholds. The potential VOC emissions from these booths are each greater than 100 tons per year. However, the Permittee does not plan to install any control device to control the VOC emissions from these booths. Therefore, the new spray booths EU 023 and EU 024 are not subject to CAM requirements

Air Emissions Risk Analysis (AERA)

The potential increase of VOCs and HAPs are limited to 95 tpy by the existing permit, therefore the modification remains below the 100 tpy threshold for an AERA.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0700 Standards for Industrial Process Equipment

Table 4. Regulatory Overview of Units Affected by the Modification/Permit Amendment

| EU/GP | Applicable Regulations | Comments |
|----------------------------|--|--|
| GP 001 Spray Booths | 40 CFR pt. 63, subp. JJ | National Emission Standards for Hazardous Air Pollutants from Wood Furniture Manufacturing Operations. Limits VHAP from finishing materials, adhesives, and strippable spray booth coatings. A Work Practice Implementation Plan (WPIP) meeting the requirements in Appendix I of the permit is required. |
| GP 002 Spray Booths | 40 CFR § 52.21 and Minn. R. 7011.0715 | Prevention of Significant Deterioration (PSD). Limits taken to avoid major source classification under PSD for all noncombustion emissions of VOCs and PM/PM ₁₀ . All spray booths shall be controlled by GP 002. VOC less than 95 tons per year for all non-combustion sources. The VOC limit is a 12-month rolling limit. Capacities of each spray gun at booths are limited as follows: <ul style="list-style-type: none">• EU 001, EU 002, EU 003: ≤ 7.13 gal/hr, an increase from the previous permit.• EU 021 and EU 022: ≤ 5.60 gal/hr and ≤ 7.01 gal/hr respectively, no change.• EU 023: ≤ 7.13 gal/hr.• EU 024: ≤ 5.00 gal/hr Standards of Performance for Post 1969 Industrial Process Equipment. Per MPCA guidance, this rule applies in addition to the NESHAP. |
| GP 003 Panel Filters | 40 CFR § 52.21 and Minn. R. 7011.0715 | Control efficiency and other operating parameter requirements to limit PM/PM ₁₀ PTE to avoid major source classification under PSD and to meet the Minnesota Performance Standard. |

3. Technical Information

3.1 Calculations of Potential to Emit

The emission calculations for the entire facility, including the new spray booths EU 023 and EU 024, are stored in Delta, the summarized calculations are included as Attachment 1 to the TSD. The calculations support the spray gun capacities listed in Table 4. However, since the permit contains total VOC and HAP caps, the various coating contents are used for calculating PM/PM₁₀ potentials and for estimating the maximum hourly emissions of VOC and HAPs. The facility can change materials as long as the new materials continue to meet the various permit limits and content assumptions.

The permitted allowable emissions take into account limits on gun capacity, maximum VOC and solids contents of coatings, total VOC and HAP caps, and particulate control requirements. The replacement of guns or changing coatings to ones that are consistent with these assumptions will not cause an emissions increase under Minn. R. 7007.1200, subp. 3 (calculating emissions increases for non-Title I changes). Therefore, they are not modifications and can be made without the need for an amendment.

Changing to a coating that has a higher solids content would be considered a modification (e.g., hourly and annual increase in PTE of PM/PM₁₀ from coating) and would need to be evaluated to determine the type of modification and possible permit action.

3.2 Insignificant Activities

Medallion Cabinetry, Inc. has several operations which are classified as insignificant activities. These are listed in Appendix II to the permit.

3.3 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 5 summarizes the periodic monitoring requirements for the new spray booths for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 5. Periodic Monitoring

| EU/GP | Requirement | Additional Monitoring | Discussion |
|-------------------------|---|--|--|
| Spray Booths GP 001 | NESHAP 40 CFR Part 63, subp. JJ | None since this NESHAP was promulgated after the CAAA of 1990 and contains adequate periodic monitoring | Onsite records are kept of VHAP and VOC content of finishing materials, adhesives, and strippable spray booth coatings. Data demonstrating compliance is submitted semiannually. |
| Spray Booths GP 002 | PSD, 40 CFR 52.21, limits to avoid major source status | Daily usage records of VOC and PM emitting materials; monthly – or equivalent accounting period – calculation of emissions, including 12- month rolling totals | Onsite records are kept of VOC content of finishing materials, adhesives, and strippable spray booth coatings. Data demonstrating compliance is maintained onsite as a 12-month rolling sum. |
| Panel Filters GP 003 | PM/PM10: Control Efficiency = 73.6% | Recordkeeping, O&M, inspections | Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic visual inspections of filter condition, corrective actions, O&M, and hood design records). |

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. No changes were made to the permit organization.

The WPIP requirements from the Wood Furniture NESHAP are included as Appendix I and the insignificant activities are included as Appendix II to the permit.

3.5 Comments Received

Public Notice Period: April 24, 2009 – May 26, 2009

EPA 45-day Review Period: April 24, 2009 – June 8, 2009

No comments were received during the notice periods.

4. Conclusion

Based on the information provided by Medallion Cabinetry, Inc., the MPCA has reasonable assurance that the operation of the emission facility, as described in the Air Emission Permit No. 13900113-002, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Trevor Shearen (permit writer/engineer)
Brent Rohne (enforcement)
Shanda Fisher (stack testing)
Chris Buntjer (peer reviewer)

AQ File No. 908C; DQ 2479

Attachments: 1. PTE Calculation Summary
2. Facility Description and CD-01 Forms (in Delta)