

**AIR EMISSION PERMIT NO. 08300023- 003**  
**(Part 70 Reissuance)**

**IS ISSUED TO**

**Saunders Karp & Megrue  
and  
Trimaran Capital Partners**

for their **MID CONTINENT CABINETRY** facility  
67 East 2nd Street North  
Cottonwood, Lyon County, MN 56229

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

| Permit Application Type                      | Application Received Date |
|--|---------------------------|
| Total Facility Operating Permit - Reissuance | 10/17/2003                |
| Supplemental Submittal #1                    | 6/8/2007                  |
| Supplemental Submittal #2                    | 1/7/2008                  |
| Supplemental Submittal #3                    | 3/11/2008                 |

This permit supersedes Permit No. 08300023-002, and authorizes the Permittee to operate 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:** June 10, 2008

**Expiration:** June 10, 2013  
All Title I Conditions do not expire.

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Jeff J. Smith, Manager  
Air Quality Permits Section  
Industrial Division

for Bard Moore  
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 the 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:**

Mid Continent Cabinetry operates a wood kitchen cabinetry manufacturing facility located in Cottonwood, Minnesota. The facility consists primarily of stain booths with particulate control consisting of high efficiency filters, drying ovens, a laminator, and wood working equipment controlled with fabric filters.

The Facility has taken limits to avoid major source classification for New Source Review (40 CFR § 52.21); however, the Facility is a major source under the National Emissions Standards for Hazardous Air Pollutants (NESHAPs, 40 CFR pt. 63) and the federal operating permits program (40 CFR pt. 70). The Facility is subject to a promulgated NESHAP for Wood Furniture Manufacturing Operations (40 CFR pt. 63, subp. JJ). The permit contains emission, operational, and control requirements that limit the emissions of volatile organic compounds, particulate matter (PM), particulate matter less than 10 microns (PM<sub>10</sub>), and hazardous air pollutants. The permit also contains requirements to control PM/PM<sub>10</sub> emissions from wood working and surface coating operations.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-1

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 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   |
|---|--|
| <b>SOURCE-SPECIFIC REQUIREMENTS</b>   | hdr  |
| 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 major 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 under 40 CFR Section 52.21; Minn. R. 7007.3000  |
| Recordkeeping of Equipment Changes: The Permittee shall maintain a written list of all emissions units and control equipment on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change. The list shall correlate the units to the numbers used in this permit (EU, GP, CE) and shall include the data on forms GI-04, GI-05A, and GI-05B. The date of construction shall be the date the change was made for replaced, modified, or new equipment.  | Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000  |
| Permit Appendices: This permit contains three appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.   | Minn. R. 7007.0800, subp. 2  |
| <b>OPERATIONAL REQUIREMENTS</b>   | 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. Section 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. |
| 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, unless otherwise noted in Table A.   | Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)   |
| Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance 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 and 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   |
| <b>PERFORMANCE TESTING</b>  | hdr  |
| Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.  | Minn. R. ch. 7017  |

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

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

|  |  |
|--|--|
| <p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test<br/> Performance Test Plan: due 30 days before each Performance Test<br/> Performance Test Pre-test Meeting: due 7 days before each Performance Test<br/> Performance Test Report: due 45 days after each Performance Test<br/> Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>   | <p>Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p> |
| <p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.</p>   | <p>Minn. R. 7017.2025, subp. 3</p>   |
| <b>MONITORING REQUIREMENTS</b>   | hdr  |
| <p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).</p>  | <p>Minn. R. 7007.0800, subp. 4(D)</p>  |
| <p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, 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.</p>  | <p>Minn. R. 7007.0800, subp. 4(D)</p>  |
| <b>RECORDKEEPING</b>   | hdr  |
| <p>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).</p>   | <p>Minn. R. 7007.0800, subp. 5(C)</p>  |
| <p>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.</p>   | <p>Minn. R. 7007.0800, subp. 5(B)</p>  |
| <p>When 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. For expiring permits, 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. For nonexpiring permits, these records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>    | <p>Minn. R. 7007.1200, subp. 4</p>   |
| <b>REPORTING/SUBMITTALS</b>  | hdr  |
| <p>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.</p> <p>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.</p> | <p>Minn. R. 7019.1000, subp. 3</p>   |

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

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

|   |   |
|---|---|
| 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.<br><br>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:<br>1. the cause of the deviation;<br>2. the exact dates of the period of the deviation, if the deviation has been corrected;<br>3. whether or not the deviation has been corrected;<br>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and<br>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 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.   | Minn. R. 7007.1150 through Minn. R. 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. The Permittee shall submit this on a form approved by the Commissioner.  | Minn. R. 7019.3000 through Minn. R. 7019.3100 |
| Emission Fees: due 60 days after receipt of an MPCA bill.   | Minn. R. 7002.0005 through Minn. R. 7002.0095 |

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

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item: GP 002 Wood Working Units**

**Associated Items:**

EU 008 Drill Tubs (1601-1604, 1606)

EU 009 Radial Arm Saw (1508)

EU 010 Chop Saw (1502)

EU 011 2-Toe Notchers (1505, 1514)

EU 012 SCMI Panel Saw (1504)

EU 013 L- Machine (1513)

EU 015 Altendorf

EU 016 Router (1501)

EU 017 2 Power Saws (1518, 1519)

EU 019 Edge Bander

EU 020 Wall Machine Grooving (1510, 1511)

EU 021 Base Machine Grooving (1512)

EU 022 Toe Notcher

EU 023 Panel Saw (1506)

EU 026 Fladder Sander (1903)

EU 027 Butfering Frame Sander (1901)

EU 040 Boring Machine

EU 041 2 Chop Saws

EU 042 Ritter (1521)

EU 043 SCMI Saw (1523)

EU 044 Belt Sander (1902)

EU 045 Disc Sander (2201)

EU 046 Shaper (1703)

EU 047 Shaper (1704)

EU 048 Bottom Notcher (1507)

EU 049 Notcher (1516)

EU 050 Notcher (1517)

| What to do   | Why to do it  |
|--|---|
| Unless otherwise specified, the requirements in GP 002 apply separately to each EU in GP 002.  | Minn. R. 7007.0800, subp. 2   |
| Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot unless required to reduce emissions to meet the less stringent limit of either 7011.0730 or 7011.0735.   | Minn. R. 7011.0715, subp. 1(A)  |
| Opacity: less than or equal to 20 percent opacity  | Minn. R. 7011.0715, subp. 1(B)  |
| <p>For all wood working units that do not qualify as conditionally insignificant under Minn. R. 7008.4110:</p> <p>-- The Permittee shall vent emissions from all units at the Facility, including existing, new, or modified units, to control equipment meeting the requirements of GP 004.</p> <p>-- If the Permittee replaces any existing units, adds new units, or modifies the units listed in GP 002, such equipment is subject to all of the requirements of GP 002 and GP 004. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-5**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item: GP 003 Wood Furniture Manufacturer NESHP**

**Associated Items:**

- EU 001 Stain Booth #1
- EU 002 Topcoat Booth #1
- EU 003 Sealer Booth #1
- EU 004 Special Use Spray Booth
- EU 024 Laminator
- EU 025 Cleaning & Thinning Solvent
- EU 028 Toner Booth #1
- EU 029 Toner Booth #2
- EU 030 Stain Booth #2
- EU 031 Stain Booth #3
- EU 032 Sealer Booth #2
- EU 033 Sealer Booth #3
- EU 034 Topcoat Booth #2
- EU 035 Topcoat Booth #3
- EU 036 Glaze Booth
- EU 037 Off-Line Booth

| What to do   | Why to do it   |
|--|--|
| EMISSION AND OPERATIONAL LIMITS  | hdr  |
| Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot unless required to reduce emissions to meet the less stringent limit of either 7011.0730 or 7011.0735. This limit applies individually to each unit in GP 003.   | Minn. R. 7011.0715, subp. 1(A)   |
| Opacity: less than or equal to 20 percent opacity . This limit applies individually to each unit in GP 003.  | Minn. R. 7011.0715, subp. 1(B)   |
| 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 and Table 2 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340       |
| HAPs - Volatile: less than or equal to 1.0 kilograms/kilograms (kg VHAP/kg solids) for each finishing material, including but not limited to, stains, basecoats, washcoats, enamels, sealers and topcoats, as applied.   | 40 CFR Section 63.802(a)(1) and Table 3 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340 |
| HAPs - Volatile: less than or equal to 1.0 kilograms/kilograms (kg VHAP/kg solids) for each contact adhesive as applied. This limit does not apply to aerosol adhesives and contact adhesives applied to nonporous substrates.   | 40 CFR Section 63.802(a)(2) and Table 3 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340 |
| HAPs - Volatile: less than or equal to 0.8 kilograms/kilograms (kg VOC/kg solids) for each strippable spray booth coating, as applied.   | 40 CFR Section 63.802(a)(3) and Table 3 of 40 CFR pt. 63, subp. JJ; Minn. R. 7011.7340 |
| Work Practice Implementation Plan: The Permittee shall maintain and adhere to the Work Practice Implementation Plan (WPIP) which defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practice standards in paragraphs (b) through (l) of 40 CFR Section 63.803. These standards are included in Appendix III 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  |
| The VHAP content for each finishing material, thinner, and strippable spray booth coating shall be determined as specified in 40 CFR Section 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   |
| The facility shall not change the formulation of any washcoat, basecoat, or enamel that is purchased as a premade compliant finishing material.  | Minn. R. 7007.0800 subp. 2; 40 CFR Section 63.804(a)(2)(i) and (ii)                    |



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-6**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

|   |  |
|---|--|
| <p>Compliance Procedure for Finishing Materials: The Permittee shall demonstrate that:</p> <p>1) each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and</p> <p>2) each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner.</p>   | 40 CFR Section 63.804(a)(2)(i) and (ii); Minn. R. 7011.7340                        |
| <p>Recordkeeping: The Permittee shall maintain the following records onsite:</p> <p>1) A certified product data sheet for each finishing material, thinner, and strippable spray booth coating;</p> <p>2) The VHAP content, in kg VHAP/kg solids, as applied, of each finishing material and contact adhesive;</p> <p>3) The VOC content, in kg VOC/kg solids, as applied, of each strippable booth coating; and</p> <p>4) The WPIP and all records associated with fulfilling the requirements of the WPIP.</p>  | 40 CFR Section 63.806(b), (c) and (e); Minn. R. 7011.7340                          |
| <p>The minimum WPIP onsite record content shall include:</p> <p>1) Records demonstrating that the operator training program is in place;</p> <p>2) Records collected in accordance with the inspection and maintenance plan;</p> <p>3) Records associated with the cleaning solvent accounting system;</p> <p>4) Records associated with the limitation on the use of conventional air spray guns showing total finishing material usage and the percentage of finishing materials applied with this type of spray guns for each semiannual period;</p> <p>5) Records associated with the formulation assessment plan required by 63.803(l); and</p> <p>6) Copies of documentation such as logs developed to demonstrate that the other provisions of the WPIP are followed.</p>  | 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 Section 63.806(h) and (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 Sections 63.806(j) and 63.10(b)(1); Minn. R. 7011.7340                      |
| <p>Content of Semiannual Compliance Status Report: At a minimum, the report shall include:</p> <p>1) a compliance certification stating the compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day;</p> <p>2) a compliance certification stating that compliant contact adhesives have been used each day;</p> <p>3) a compliance certification stating that compliant strippable spray booth coatings have been used each day; and</p> <p>4) a compliance certification stating that the WPIP was followed.</p> <p>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 identify which requirements as required by 40 CFR Section 63.804(g) and shall state the measures taken to bring the facility back in to compliance.</p> | 40 CFR Sections 63.804(g)(1), (g)(7), and (g)(8) and 63.807(c); Minn. R. 7011.7340 |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-7

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item:** GP 004 Fabric Filters for Wood Working Units**Associated Items:** CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 006 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 007 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

| What to do  | Why to do it  |
|---|---|
| Unless otherwise specified, the requirements in GP 004 apply separately to each CE in GP 004.   | Minn. R. 7007.0800, subp. 2   |
| LIMITS  | hdr   |
| Operate and maintain control equipment to achieve a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Operate and maintain control equipment to achieve a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Pressure Drop: greater than or equal to 0.3 inches of water column and less than or equal to 0.9 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| If the Permittee replaces any existing fabric filter, adds new fabric filters, or modifies the fabric filters listed in GP 004, such equipment is subject to all of the requirements of GP 004. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (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  |
| MONITORING AND RECORDKEEPING  | hdr   |
| Pressure Drop Recordkeeping: The Permittee shall record the pressure drop at least once every 24 hours when in operation. The Permittee shall record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit.   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 |
| Once each operating day, the Permittee shall visually observe each fabric filter stack during daylight hours and determine if any visible emissions are present. The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.   | Minn. R. 7007.0800, subps. 4 and 5  |
| Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br>- visible emissions are observed;<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br>Corrective actions shall return the pressure drop to within the permitted range, 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 fabric 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, and 14   |
| Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.   | Minn. R. 7007.0800, subp. 4   |
| Periodic Inspections: 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, and 14   |
| Initial Hood Certification and Evaluation: See requirements at CE 006 and 007.  | Minn. R. 7007.0800, subps. 4, 5, and 14   |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

|  |   |
|--|---|
| Annual Hood Evaluation for CE 006 and 007: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site. | Minn. R. 7007.0800, subps. 4, 5, and 14 |
|--|---|

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

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item:** GP 005 Ovens**Associated Items:** EU 006 Drying Oven #1

EU 038 Drying Oven #2

EU 039 Drying Oven #3

| What to do  | Why to do it                  |
|---|-------------------------------|
| Unless otherwise specified, the requirements in GP 005 apply separately to each EU in GP 005.   | Minn. R. 7007.0800, subp. 2   |
| Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.  | Minn. R. 7011.0610, subp. 1   |
| 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. | Minn. R. 7011.0610, subp. 1   |
| Fuel Type: natural gas only, by design.   | Minn. R. 7005.0100, subp. 35a |
| The Permittee shall keep records of fuel type and usage on a monthly basis.   | Minn. R. 7007.0800, subp. 5   |

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

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item: GP 006 VOC and Coating Limits**

**Associated Items:**

- EU 001 Stain Booth #1
- EU 002 Topcoat Booth #1
- EU 003 Sealer Booth #1
- EU 004 Special Use Spray Booth
- EU 024 Laminator
- EU 025 Cleaning & Thinning Solvent
- EU 028 Toner Booth #1
- EU 029 Toner Booth #2
- EU 030 Stain Booth #2
- EU 031 Stain Booth #3
- EU 032 Sealer Booth #2
- EU 033 Sealer Booth #3
- EU 034 Topcoat Booth #2
- EU 035 Topcoat Booth #3
- EU 036 Glaze Booth
- EU 037 Off-Line Booth

| What to do  | Why to do it  |
|---|---|
| EMISSION AND OPERATIONAL LIMITS   | hdr   |
| <p>Volatile Organic Compounds: less than or equal to 19.6 tons/month using 12-month Rolling Average to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in GP 006.</p> <p>All non-combustion VOC-emitting equipment at the facility (other than those listed in Appendix I of this permit) is subject to this limit and shall be included in the 12-month rolling average calculation (e.g., coating, cleaning, adhesives, etc.).</p>  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| <p>Particulate Controls for Spraying Operations: The Permittee shall vent emissions from all spray booths, including existing, modified, or new spray booths, to control equipment meeting the requirements of GP 007 or GP 008. Booths with pre-control potential emissions of particulate matter greater than 100 tpy shall use controls meeting the requirements of GP 008. All other booths shall use controls meeting the requirements of GP 007.</p>  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| <p>VOC PreCap: If the Permittee replaces any existing non-combustion VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment listed in GP 006, such equipment is subject to the above VOC limit as well as all of the requirements of GP 006. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. 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> | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| <p>Spray Gun Restrictions:</p> <p>1). The total spray capacity of each booth shall meet the maximum capacity limits in Appendix II of this permit for the specified booth.</p> <p>2). All spray guns must be either high volume low pressure (HVLP) or have a manufacturer specified minimum transfer efficiency of 75% or greater.</p>   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| MONITORING AND RECORDKEEPING  | hdr   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-11**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

|  |   |
|--|---|
| Daily Recordkeeping. 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 and/or delivery records.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 and 5 |
| Monthly Recordkeeping -- VOC Emissions.<br>By the 15th of the month, the Permittee shall calculate and record the following:<br>1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit;<br>2) The VOC emissions for the previous month using the formulas specified in this permit; and<br>3) The average monthly VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months and dividing by 12.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 and 5 |
| Monthly Calculation -- VOC Emissions.<br>The Permittee shall calculate VOC emissions using the following equations:<br><br>$\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3 + \dots$<br>where:<br>V = total VOC used in tons/month;<br>A# = amount of each VOC containing material used, in tons/month;<br>B# = weight percent VOC in A#, as a fraction.<br>W = the amount of VOC shipped in waste, in tons/month;<br>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<br>D# = weight percent of VOC in C#, as a fraction.  | Minn. R. 7007.0800, subp. 4 and 5   |
| Recordkeeping for Spray Guns: The Permittee shall maintain on-going records for each spray gun that includes the spray technology and manufacturer specified transfer efficiency (minimum of 75%), the spray capacity in gallons per hour, and the EU (emission unit) number of the spray booth where the gun will be used. This record shall be updated any time a spray gun is added or replaced.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5  |
| Determination of Material Content For Emission Calculations: VOC and solids in all materials shall be determined by the Environmental Data Sheet (EDS), Certified Data Product Sheet (CDPS), or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used, except as specified below. If the EDS, CDPS, or MSDS provides a material content range, the highest number in the range shall be used in all calculations.<br><br>Alternative methods approved by the MPCA may be used to determine material VOC and solids. In addition, the Commissioner reserves the right to require the Permittee to determine the VOC 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 EDS, CDPS, or MSDS. | Minn. R. 7007.0800, subp. 4 and 5   |
| Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC content for each credited shipment.<br>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, excluding water.<br>2) The Permittee may use supplier data for raw materials to determine the VOC content 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 content of any of the materials.  | Minn. R. 7007.0800, subp. 4 and 5   |
| Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the annual and short term potential to emit of units in GP 006. These assumptions are listed in Appendix II of this permit. Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150.   | Minn. R. 7005.0100, subp. 35a   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-12**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item: GP 007 Panel Filters Not Subject to CAM****Associated Items:** CE 001 Split Paper + Polyester Paint Arrestor

CE 008 Split Paper + Polyester Paint Arrestor

CE 009 Split Paper + Polyester Paint Arrestor

CE 010 Split Paper + Polyester Paint Arrestor

CE 011 Split Paper + Polyester Paint Arrestor

CE 016 Split Paper + Polyester Paint Arrestor

| What to do   | Why to do it  |
|--|---|
| Unless otherwise specified, the requirements in GP 007 apply separately to each CE in GP 007.  | Minn. R. 7007.0800, subp. 2   |
| LIMITS   | hdr   |
| Operate and maintain control equipment to achieve a control efficiency for Particulate Matter < 10 micron: greater than or equal to 92 percent control efficiency  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| Operate and maintain control equipment to achieve a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| The Permittee shall operate and maintain each filter any time that any process equipment controlled by the filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| If the Permittee replaces any existing filter, adds new filters, or modifies the filters listed in GP 007, such equipment is subject to all of the requirements of GP 007. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| MONITORING AND RECORDKEEPING   | hdr   |
| Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 |
| Periodic Inspections: 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, subp. 4, 5, and 14  |
| Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall 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, subp. 4, 5, and 14  |
| Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (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  |
| Initial Hood Certification and Evaluation: Each control device hood must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. The Permittee shall maintain a copy of the evaluation and certification on site. See requirement at CE 001 for initial hood certification and evaluation for that control device.  | Minn. R. 7007.0800, subp. 4, 5 and 14   |
| Annual Hood Evaluation: For each hood, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.   | Minn. R. 7007.0800, subp. 4, 5 and 14   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-13**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item: GP 008 Panel Filters Subject to CAM****Associated Items:** CE 002 Split Paper + Polyester Paint Arrestor

CE 003 Split Paper + Polyester Paint Arrestor

CE 004 Split Paper + Polyester Paint Arrestor

CE 012 Split Paper + Polyester Paint Arrestor

CE 013 Split Paper + Polyester Paint Arrestor

CE 014 Split Paper + Polyester Paint Arrestor

CE 015 Split Paper + Polyester Paint Arrestor

CE 017 Split Paper + Polyester Paint Arrestor

| What to do  | Why to do it   |
|---|--|
| Unless otherwise specified, the requirements in GP 008 apply separately to each CE in GP 008.   | Minn. R. 7007.0800, subp. 2  |
| LIMITS  | hdr  |
| Operate and maintain control equipment to achieve a control efficiency for Particulate Matter < 10 micron: greater than or equal to 92 percent control efficiency   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000  |
| Operate and maintain control equipment to achieve a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000  |
| The Permittee shall operate and maintain each filter any time that any process equipment controlled by the filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.  | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000  |
| If the Permittee replaces any existing filter, adds new filters, or modifies the filters listed in GP 008, such equipment is subject to all of the requirements of GP 008. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000  |
| MONITORING AND RECORDKEEPING  | hdr  |
| Daily Inspections: At least once per 24-hour period, the Permittee shall visually inspect the condition of the filter with respect to alignment, saturation, tears, holes and any other matter that may affect the filter's performance. The Permittee shall record the time and date of each inspection and any actions resulting from the inspection.   | Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200 |
| Periodic Inspections: 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.   | 40 CFR Section 64.3; Minn. R. 7017.0200  |
| Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall 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.  | 40 CFR Section 64.7(d); Minn. R. 7017.0200   |
| Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.   | 40 CFR Section 64.7(b); Minn. R. 7017.0200   |
| Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.  | 40 CFR Section 64.7(e); Minn. R. 7017.0200   |
| As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. | 40 CFR Section 64.9(a)(2); Minn. R. 7017.0200  |



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-14**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

|  |  |
|--|--|
| The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. | 40 CFR Section 64.9(b); Minn. R. 7017.0200 |
| Initial Hood Certification and Evaluation: Each control device hood must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. The Permittee shall maintain a copy of the evaluation and certification on site. See requirements at CE 002, 003, and 004 for initial hood certification and evaluation for those control devices.                                     | Minn. R. 7007.0800, subp. 4, 5 and 14      |
| Annual Hood Evaluation: For each hood, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.   | Minn. R. 7007.0800, subp. 4, 5 and 14      |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-15**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item:** GP 009 Air Make Up Units**Associated Items:** EU 051 Make Up Air Unit

EU 052 Make Up Air Unit

| What to do  | Why to do it                  |
|---|-------------------------------|
| Unless otherwise specified, the requirements in GP 009 apply separately to each EU in GP 009.   | Minn. R. 7007.0800, subp. 2   |
| Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . The potential to emit from each unit is 0.0072 lb/MMBtu due to equipment design and allowable fuels. | Minn. R. 7011.0515, subp. 1   |
| Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.  | Minn. R. 7011.0515, subp. 2   |
| Fuel Type: natural gas only, by design.   | Minn. R. 7005.0100, subp. 35a |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

Subject Item: CE 001 Split Paper + Polyester Paint Arrestor

Associated Items: EU 001 Stain Booth #1  
GP 007 Panel Filters Not Subject to CAM

| What to do  | Why to do it                            |
|---|---|
| Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of CE 001. The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.<br><br>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply. | Minn. R. 7007.0800, subps. 4, 5, and 14 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

Subject Item: CE 002 Split Paper + Polyester Paint Arrestor

Associated Items: EU 002 Topcoat Booth #1  
GP 008 Panel Filters Subject to CAM

| What to do  | Why to do it                            |
|---|---|
| Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of CE 002. The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.<br><br>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply. | Minn. R. 7007.0800, subps. 4, 5, and 14 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

Subject Item: CE 003 Split Paper + Polyester Paint Arrestor

Associated Items: EU 003 Sealer Booth #1  
GP 008 Panel Filters Subject to CAM

| What to do  | Why to do it                            |
|---|---|
| Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of CE 003. The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.<br><br>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply. | Minn. R. 7007.0800, subps. 4, 5, and 14 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

Subject Item: CE 004 Split Paper + Polyester Paint Arrestor

Associated Items: EU 004 Special Use Spray Booth

GP 008 Panel Filters Subject to CAM

| What to do  | Why to do it                            |
|---|---|
| Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of CE 004. The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.<br><br>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply. | Minn. R. 7007.0800, subps. 4, 5, and 14 |

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-20**

06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 003

**Subject Item:** CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 009 Radial Arm Saw (1508)

EU 010 Chop Saw (1502)

EU 011 2-Toe Notchers (1505, 1514)

EU 012 SCMI Panel Saw (1504)

EU 013 L- Machine (1513)

EU 015 Altendorf

EU 016 Router (1501)

EU 017 2 Power Saws (1518, 1519)

EU 019 Edge Bander

EU 020 Wall Machine Grooving (1510, 1511)

EU 021 Base Machine Grooving (1512)

EU 022 Toe Notcher

EU 023 Panel Saw (1506)

EU 040 Boring Machine

EU 041 2 Chop Saws

EU 042 Ritter (1521)

EU 043 SCMI Saw (1523)

EU 048 Bottom Notcher (1507)

EU 049 Notcher (1516)

EU 050 Notcher (1517)

GP 004 Fabric Filters for Wood Working Units

| What to do  | Why to do it                                   |
|---|--|
| <p>Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of all hoods connected to CE 006. The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.</p> <p>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply.</p> | <p>Minn. R. 7007.0800, subps. 4, 5, and 14</p> |

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 003

Subject Item: CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

- Associated Items:
- EU 008 Drill Tubs (1601-1604, 1606)
  - EU 026 Fladder Sander (1903)
  - EU 044 Belt Sander (1902)
  - EU 045 Disc Sander (2201)
  - EU 046 Shaper (1703)
  - EU 047 Shaper (1704)
  - GP 004 Fabric Filters for Wood Working Units

| What to do   | Why to do it                            |
|--|---|
| Performance Test: due 120 days after Permit Issuance for the Initial Hood Certification and Evaluation of all hoods connected to CE 007 (does not include EUs 026 and 044 since they have total enclosures). The control device hoods must conform to the requirements listed in Minn. R. 7011.0072, subp. 2(B), and the Permittee shall certify this as specified in Minn. R. 7011.0072, subp. 2.<br><br>See the Total Facility Requirements for the Performance Test Notification and Submittal requirements that apply. | Minn. R. 7007.0800, subps. 4, 5, and 14 |



## TABLE B: SUBMITTALS

B-1 06/10/08

Facility Name: Mid Continent Cabinetry  
Permit Number: 08300023 - 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.

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.

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

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: Mid Continent Cabinetry  
Permit Number: 08300023 - 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               |

**TABLE B: RECURRENT SUBMITTALS****B-3** 06/10/08

Facility Name: Mid Continent Cabinetry

Permit Number: 08300023 - 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 06/07/1996. The report shall contain the information specified in Table A of this permit, under GP 003.  | GP003                        |
| Semiannual Deviations Report | due 30 days after end of each calendar half-year following Permit Issuance. 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 31 days after end of each calendar year following Permit Issuance. 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 12-month rolling average 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 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this 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: Mid Continent Cabinetry**  
**Permit Number: 08300023-003**

**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.

| <b>Minn. R.</b>            | <b>Rule Description of the Activity</b>  | <b>General Applicable Requirement</b>                              |
|----------------------------|--|--|
| 7007.1300, subp. 3(A)      | Fuel use: space heaters fueled by, kerosene, natural gas, or propane. <i>Current total capacity is 0.855 MMBtu/hr.</i>   | Minn. R. 7011.0515   |
| 7007.1300, subp. 3(B)(1)   | Infrared electric ovens  | Minn. R. 7011.0715   |
| 7007.1300, subp. (3)(H)(3) | Brazing, soldering or welding equipment  | Minn. R. 7011.0515 +<br>Minn. R. 7011.0610 +<br>Minn. R. 7011.0715 |
| 7007.1300 subp. 3(I)       | Individual emissions units with emissions less than <b>all</b> the following limits:<br>A. potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of CO;<br>B. potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for PM, PM <sub>10</sub> , NO <sub>x</sub> , SO <sub>2</sub> , and VOCs; and<br>C. for HAPs, emissions units with:<br>(1) potential emissions of 25 percent or less of the HAP thresholds listed in subp. 5 of the rule; or<br>(2) combined HAP actual emissions of one ton per year unless the emissions unit emits one or more of certain HAPs listed in the rule.<br><br><i>The Facility has several activities listed under this subpart. These include: 3 air make up units and 6 furnaces. Total capacity is 4.398 MMBtu/hr.</i> | Minn. R. 7011.0515<br>or<br>Minn. R. 7011.0610                     |
| 7007.1300 subp. 3(J)       | Fugitive Emissions from roads and parking lots.  | Minn. R. 7011.0150   |
| 7008.4110                  | Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM <sub>10</sub> ) inside a building, provided that emissions from the equipment are:<br><br>a). filtered through an air cleaning system; and<br><br>b). vented inside of the building 100% of the time.<br><br><i>Currently have several wood milling operations that vent internally, with a total capacity of 7780 cfm.</i>  | Minn. R. 7011.0715   |

**APPENDIX II**  
**Facility Name: Mid Continent Cabinetry**  
**Permit Number: 08300023-003**

**Material Contents and Spray Gun Limits**

The total spray capacity in each spray booth is limited to the capacity given in the table below for the specified unit – if the booth can use two guns at the same time, the total capacity of both guns combined must be less than the capacity limit.

| <b>Emission Unit<br/>(EU)</b> | <b>Total Gun Capacity<br/>Limit (all guns combined)<br/>(gallons/hour)</b> | <b>Maximum Solids<br/>Content, as applied<br/>(lb/gallon)</b> | <b>Maximum VOC Content,<br/>as applied (lb/gallon)</b> |
|-------------------------------|--|---|--|
| 001                           | 30.0   | 1.17  | 9.33   |
| 002                           | 45.0   | 5.05  | 4.81   |
| 003                           | 45.0   | 6.38  | 4.09   |
| 004                           | 18.75  | 6.38  | 9.33   |
| 028                           | 28.2   | 2.62  | 6.67   |
| 029                           | 28.2   | 2.62  | 6.67   |
| 030                           | 28.4   | 1.17  | 9.33   |
| 031                           | 28.4   | 1.17  | 9.33   |
| 032                           | 26.0   | 6.38  | 4.09   |
| 033                           | 26.0   | 6.38  | 4.09   |
| 034                           | 26.0   | 5.05  | 4.81   |
| 035                           | 26.0   | 5.05  | 4.81   |
| 036                           | 28.2   | 2.82  | 6.76   |
| 037                           | 28.2   | 6.38  | 9.33   |

**APPENDIX III**  
**Facility Name: Mid Continent Cabinetry**  
**Permit Number: 08300023-003**

**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 – The Permittee shall follow a written leak inspection and maintenance plan. 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 HAP 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 – The Permittee shall maintain an accounting system to record the following:

- 1) the quantities and types of organic HAP 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 HAP 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 – The Permittee shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and total enclosures, metal filters, or plastic filters unless the spray booth is being refurbished. If the Permittee is replaces the spray booth coating or other protective material used to cover the booth, the Permittee shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.

F. Storage requirements – the Permittee shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

G. Application equipment requirements - the 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).

**APPENDIX III**  
**Facility Name: Mid Continent Cabinetry**  
**Permit Number: 08300023-003**

H. Line Cleaning – the Permittee shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.

I. Gun cleaning – the Permittee shall collect all organic HAP solvent used to clean spray guns into a normally closed container.

J. Washoff operations – the Permittee shall 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 – the Permittee shall prepare and maintain with the WPIP a formulation assessment plan only if any of 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).

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 08300023-003**  
**Part 70 Reissuance**

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**

|   |
|---|
| Stationary Source/Address<br>(SIC Code: 2434)   |
| <b>Mid Continent Cabinetry</b><br>67 East 2nd Street North<br>Cottonwood, MN<br>Lyon County 56229 |
| Contact: Kevin Anderson<br>Phone: (507) 423-5492  |

**1.2 Description of the Facility Permit Action**

Mid Continent Cabinetry operates a stationary wood kitchen cabinetry manufacturing facility located in Cottonwood, Minnesota. The facility consists of fourteen spray booths with particulate control consisting of high efficiency filters. The facility also has drying ovens; a laminator; many pieces of wood working equipment controlled by three fabric filters. There are also several activities that qualify as insignificant under Minnesota Rules. These are listed in Appendix I of the permit.

The primary pollutants emitted from the existing facility are volatile organic compounds (VOCs), particulate matter and particulate matter less than 10 microns (PM/PM<sub>10</sub>), and hazardous air pollutants (HAPs) with lesser emissions from the combustion of natural gas.

This permit action is the Reissuance of the Part 70 permit.

**1.3 Description of the Activities Allowed by this Permit Action**

There are no changes authorized by this permit action.



#### 1.4 Description of All Amendments Issued Since Original Part 70

**Table 1. Permit Actions**

| Permit Number and Issuance Date   | Action Authorized   |
|-----------------------------------|---|
| 08300023-002<br>December 12, 2004 | Permit action -002 authorized the addition of a new finish line. The new finish line consisted of 10 new spray booths and one new drying oven. The existing PM, PM <sub>10</sub> , and VOC limits remained unchanged. |
| 08300023-001<br>April 13, 1999    | Permit action -001 was the Part 70 permit. No changes were authorized.  |

#### 1.5 Facility Emissions

**Table 2. Total Facility Potential to Emit Summary**

|   | PM<br>tpy | PM <sub>10</sub><br>tpy | SO <sub>2</sub><br>tpy | NO <sub>x</sub><br>tpy | CO<br>tpy | VOC<br>tpy | All<br>HAPs<br>tpy |
|---|-----------|-------------------------|------------------------|------------------------|-----------|------------|--------------------|
| Total Facility Limited<br>Potential Emissions | 40.7      | 40.7                    | 0.041                  | 6.90                   | 5.80      | 236        | 235                |
| Total Facility Actual<br>Emissions (2006)     | 26.3      | 16.5                    | 0.0                    | 0.26                   | 0.22      | 205        | NR                 |

NR – not reported as part of the annual emissions inventory

**Table 3. Facility Classification**

| Classification<br>(put x in appropriate box) | Major/Affected<br>Source | *Limited<br>Minor | *True Minor |
|--|--------------------------|-------------------|-------------|
| PSD  |                          | X                 |             |
| Part 70 Permit Program                       | X                        |                   |             |
| Part 63 NESHAP                               | X                        |                   |             |

\* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

#### 1.6 Changes to Permit

No significant changes have been made to the requirements in the permit. The following types of changes have been made:

- updated to reflect current MPCA templates and standard citation formatting;
- completed requirements and the requirements for equipment that has been removed have been deleted;
- equipment recordkeeping was clarified at the total facility level;
- the total facility VOC limit has been lowered to leave a larger margin with the federal threshold;
- an option for taking credit for VOC contained in waste has been added to the formula for VOC emissions;
- the PM/PM<sub>10</sub> limits have been removed because they are no longer necessary (restricted PTE is lower than the previous caps);

- hood certification and evaluation requirements were added for all control equipment per MPCA practice (these were left out by mistake in earlier permit actions);
- many requirements have been reorganized into several groups and reordered to help with clarity and to meet MPCA guidance on the grouping of requirements;
- appendices have been added to the permit for insignificant activities, maximum contents of materials, and the work practice elements of the wood furniture NESHAP, per MPCA standard practice for this type of facility;
- compliance assurance monitoring has been added for the units subject to this rule; and
- the control equipment requirements have been written to apply to existing, new (replaced), and modified control equipment. The Permittee must comply with these requirements when making changes in the future. This may enable proposed changes to be handled with a lower-level amendment once the control equipment credit is taken.

## **2 Regulatory and/or Statutory Basis**

### New Source Review

The facility is an existing minor source under New Source Review regulations due to existing permit limits. No changes are authorized by this permit.

### Part 70 Permit Program

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

### New Source Performance Standards (NSPS)

The Permittee has stated that there are no New Source Performance Standards applicable to the operations at this facility.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility remains a major source under 40 CFR pt. 63. It remains subject to the wood furniture manufacturing NESHAP. The Permittee has stated that no additional NESHAPs apply at this time.

### Compliance Assurance Monitoring (CAM)

The Facility has eight spray booths that are subject to CAM (40 CFR pt. 64). All have potential pre-control potential emissions greater than 100 tpy (PM) and have control equipment that is used to comply with an emissions limit or standard (IPER or other PM/PM<sub>10</sub> limit). All have potential post-control emissions less than 100 tpy; therefore, the units are considered other (vs. large) pollution-specific emissions units (PSEUs).

None of the wood working units have pre-control potential emissions greater than 100 tpy of PM.

### Environmental Review

No allowable emissions increases are authorized by this permit, so no environmental review is required.

### Minnesota State Rules

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

- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment

**Table 4. Regulatory Overview of Facility**

| <b>*Level</b> | <b>Applicable Regulations</b>                     | <b>Comments:</b>   |
|---------------|---|--|
| GP 002**      | 40 CFR § 52.21<br><br>Minn. R. 7011.0715          | PSD. The permit requires that all wood working units be controlled by GP 004.<br>The limits are written to apply to all existing, new, or modified units. This allows the emissions limit and control efficiency (at GP 004) to be considered when determining if future changes require a permit amendment based on the emissions increase.<br>Standards of Performance for Post 1969 Industrial Process Equipment. All equipment is post-1969.   |
| GP 003        | 40 CFR pt. 63, subp. JJ<br><br>Minn. R. 7011.0715 | National Emission Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations. Carried forward from the original Part 70 permit -- coating operations are considered existing under this standard and they use compliant coatings (i.e., no add-on control device or averaging).<br><br>Standards of Performance for Post 1969 Industrial Process Equipment.  |
| GP 004        | 40 CFR § 52.21                                    | PSD. Control efficiency and other operating parameter requirements to limit PM/PM <sub>10</sub> PTE to avoid major source classification under PSD. Three units (sanders) have total enclosures, all others use hoods. Permit specifies that new, replaced, or modified fabric filters must meet the GP 004 requirements.  |
| GP 005        | Minn. R. 7011.0610                                | Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment.   |
| GP 006        | 40 CFR § 52.21                                    | PSD. Limits taken to avoid major source and modification classification under PSD for all noncombustion emissions of VOC. The permit carries forward a limit on emissions of VOC from all noncombustion processes. It is a rolling limit due to substantial and unpredictable variations in operation. The permit requires all spray booths to be controlled by GP 007 or GP 008 (depending on CAM applicability).<br><br>The permit also includes limits on the total spray capacity in each booth and the transfer efficiency of the spray guns. These limits combined with the control requirements limit the PM/PM <sub>10</sub> emissions (lb/hr and tpy) to less than the PSD threshold. |
| GP 007        | 40 CFR § 52.21                                    | PSD. Control efficiency and other requirements to limit PM/PM <sub>10</sub> PTE to avoid major source classification under PSD. Reflects hood capture. Permit specifies that new, replaced, or modified panel filters must meet the GP 007 requirements.   |
| GP 008        | 40 CFR § 52.21<br><br>40 CFR pt. 64               | PSD. Control efficiency and other operating parameter requirements to limit PM/PM <sub>10</sub> PTE to avoid major source classification under PSD. Reflects hood capture. Permit specifies that new, replaced, or modified panel filters must meet the GP 008 requirements.<br><br>Compliance Assurance Monitoring (CAM). The panel filters are   |

| <b>*Level</b>            | <b>Applicable Regulations</b>           | <b>Comments:</b>   |
|--------------------------|---|--|
|                          |   | used to comply with the IPER particulate limit, and the uncontrolled potential from each of these eight booths is greater than 100 tpy, so CAM applies.  |
| GP 009                   | Minn. R. 7011.0515                      | Standards of Performance for Indirect Heating Equipment. Fuel limited to natural gas only. The direct heating equipment rule might seem to apply to the air make up units, since the combustion gases are vented directly into the building. However, none of these units are used for “processing a material”, the other criteria necessary to be direct heating equipment (e.g., process oven or dryer). Since the intent of the indirect heating rule is to limit emissions from combustion, this rule applies.<br><br>The permit contains limits based on: <ul style="list-style-type: none"> <li>• burning gaseous fuels;</li> <li>• all units constructed after 1977;</li> <li>• located outside the Minneapolis/St. Paul Air Quality Control Region; and</li> <li>• the units and the site have <math>\leq 250</math> MMBtu/hr capacity.</li> </ul> |
| CE 001-004, 006, and 007 | Minn. R. 7007.0800, subps. 4, 5, and 14 | Initial hood evaluation and certification requirements for hoods that were not previously certified. The only unit currently vented to CE 005 has a total enclosure, so this control device is not included here.  |

\*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

\*\*There is no GP 001 in the permit; it was deleted in an earlier permit action.

### 3 Technical Information

#### 3.1 Calculations of Potential to Emit

Detailed spreadsheets containing PTE calculations are found in Delta and in Attachment 1 to this TSD. These spreadsheets were prepared by the MPCA based on information provided by the Permittee. The calculations for coating are based on mass balance, the combustion calculations are based on EPA emissions factors, and the wood working operations are based on a combination of vendor information, test results from similar facilities, and EPA emissions factors. See Attachment 1 for a discussion of the calculations.

The Permittee’s HAP calculations included emissions of three compounds that are VOCs, but are not regulated as HAPs (specifically: methyl ethyl ketone, 1,2,4-trimethylbenzene, and butanol). Those materials are not included as HAPs in the documents for this permit, but are included as part of the VOC data.

Table 1 of this document summarizes the potential to emit for various HAPs. These HAPs and their PTEs are based on the current and projected coatings and formulations for this Facility. The Facility can change materials at any time, as long as the new materials continue to meet the various permit limits, including the NEHSAP.

### **3.2 Dispersion Modeling**

Per an MPCA 1993 policy, in the 1999 permit the Facility was required to do air dispersion modeling to show compliance with the PM<sub>10</sub> national ambient air quality standards (NAAQS). The Permittee submitted the modeling as required. The modeling report stated that the Facility had modeled compliance with the NAAQS. The MPCA only completed a preliminary review of the report when it was received.

The MPCA modeling policy was revised in 2001. Under that policy, the Facility would not have been required to complete dispersion modeling, but would instead been required to submit “modeling information” – data that could be used to model the Facility, if needed. This was because the PM<sub>10</sub> PTE was greater than 100 tpy, but the actual emissions were less than 100 tpy. The Permittee could have requested an amendment to revise the modeling requirement to only require the modeling information, but they did not.

Under the new permit, both the potential and actual emissions of PM<sub>10</sub> are now low enough that no modeling analyses or modeling information would be required (both significantly less than 100 tpy). In addition, the MPCA’s modeling section has a significant backlog of projects, so only those that involve construction permits are currently being reviewed. The status of the 2005 modeling submittal was discussed with the modeling unit supervisor and the permit unit supervisor. Because the Facility’s potential and actual emissions are now less than the thresholds that would require modeling or modeling data, it was agreed that at this time, the 2005 modeling report would be filed without further review.

### **3.3 CAM and 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.

For CAM, the Permittee submitted a CAM proposal as required by 40 CFR pt. 64.3. These can be found in Attachment 3 to this TSD. Further discussion of decisions about CAM can be found in Table 5.

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 monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate or where CAM applies.

**Table 5. Periodic Monitoring**

| <b>EU/ GP/ CE</b>                    | <b>Emission limit<br/>(Basis)</b>   | <b>Additional<br/>Monitoring</b>  | <b>Discussion</b>  |
|--------------------------------------|---|---|--|
| GP 002<br>(wood<br>working<br>units) | PM: various<br>grain loading<br>limits<br>Opacity: $\leq 20\%$<br>(Minn. R.<br>7011.0715)<br>PM/PM <sub>10</sub> : All<br>wood working<br>units required to<br>be controlled by<br>GP 004 (to<br>avoid NSR) | see GP 004 for<br>monitoring<br><br>see GP 004 for<br>monitoring  |  |
| GP 003<br>(NESHAP<br>sources)        | Various HAP<br>requirements   | None  | NESHAP requirements are considered adequate<br>monitoring.   |
| GP 004<br>(fabric<br>filters)        | PM/PM <sub>10</sub> $\geq$<br>99.0% overall<br>control (to<br>avoid NSR)  | Pressure drop<br>monitoring, daily VE<br>checks, recordkeeping,<br>O&M, inspections   | The monitoring is similar to the Minnesota<br>Performance Standard for Control Equipment for<br>fabric filters (daily pressure drop reading and VE<br>checks, periodic inspections, corrective actions, and<br>O&M).<br><br>Standard hood certification and evaluation<br>requirements have been added to this permit – they<br>were previously left out by mistake. See the CE<br>requirements at the end of this table.  |
| GP 005<br>(ovens)                    | PM: various<br>grain loading<br>limits<br>Opacity: $\leq 20\%$<br>with exceptions<br>(Minn. R.<br>7011.0610)  | Recordkeeping:<br>Monthly Fuel records  | All units use natural gas; therefore, the likelihood of<br>violating either of the emission limits is very small.<br>All units use natural gas; therefore, the likelihood of<br>violating either of the emission limits is very small.<br>The Permittee can demonstrate that these units will<br>continue to operate such that emissions are well<br>below the emission limits by only burning natural   |
| GP 006<br>(VOC limit)                | VOC $\leq 19.6$<br>tons per month<br>rolling average<br>(limit to avoid<br>NSR)   | Recordkeeping: Daily<br>records of coating<br>usage; On-going<br>MSDS records of<br>coating contents;<br>Monthly calculations<br>of emissions | Usage records are generated on a daily basis.<br><br>Credit can be taken for waste materials collected<br>and shipped off-site. Since this is done at most<br>monthly, calculating emissions more frequently<br>than monthly would result in large spikes (while<br>waste is accumulating) and dips (when waste is<br>shipped) – resulting in possible paperwork<br>violations and days with negative emissions. For<br>this reason, 12-month rolling limits are reasonable<br>for this facility.<br><br>Standard language for waste credit is included. |

| EU/ GP/ CE                    | Emission limit<br>(Basis)   | Additional<br>Monitoring   | Discussion  |
|-------------------------------|---|--|---|
|                               | <p>PM/PM<sub>10</sub>: All booths required to be controlled by GP 007 or GP 008 (to avoid NSR)</p> <p>PM: various grain loading limits</p> <p>Opacity: <math>\leq 20\%</math> (Minn. R. 7011.0715)</p> <p>Gun restrictions: maximum capacities and transfer efficiency (to avoid NSR)</p> | <p>see GP 007 and GP 008 for monitoring</p> <p>none</p> <p>Recordkeeping</p> | <p>Other PM limits at GP 007 and GP 008 (and associated monitoring) help ensure that this applicable requirement is being met. All other booths have controlled PTEs significantly less than the allowable rule limits.</p> <p>Required to keep manufacturer specifications for all guns, at all times.</p>   |
| GP 007<br>(panel filters)     | PM/PM <sub>10</sub> : Control Efficiency of 92% (limit to avoid NSR)  | Recordkeeping, O&M, inspections  | <p>Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, and O&amp;M).</p> <p>Standard hood certification and evaluation requirements have been added to this permit – they were previously left out by mistake. See the CE requirements at the end of this table.</p> |
| GP 008<br>(CAM panel filters) | PM/PM <sub>10</sub> $\geq 92\%$ control efficiency (to avoid NSR)   | Recordkeeping, O&M, inspections (CAM)  | <p>Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, and O&amp;M).</p> <p>Standard hood certification and evaluation requirements have been added to this permit. See the CE requirements at the end of this table.</p>  |
| GP 009 (air make up units)    | <p>PM: <math>\leq 0.4</math> lb/MMBtu</p> <p>Opacity: <math>\leq 20\%</math> with exceptions (Minn. R. 7011.0515)</p>   | Recordkeeping:<br>Monthly Fuel records                                       | <p>All units use natural gas and therefore the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas. Design based PTE for each unit, using AP-42, is 0.0072 compared to the rule limit of 0.4 lb/MMBtu.</p>                      |

| EU/ GP/ CE               | Emission limit<br>(Basis) | Additional<br>Monitoring                  | Discussion  |
|--------------------------|---------------------------|---|---|
| CE 001-004, 006, and 007 | Limits at GP levels       | Initial hood evaluation and certification | These hoods have not yet been evaluated. The permit gives the facility 120 days after permit issuance to complete this evaluation and certification (vs. the typical 30 days). The amount of time given reflects the fact that there are 30+ units connected to these control devices and each has its own hood that must be evaluated. |

### 3.5 Insignificant Activities

Mid Continental Cabinetry has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit.

The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities. See the calculation spreadsheet for PTE information for the insignificant activities.

**Table 6. Insignificant Activities**

| Insignificant Activity  | General Applicable<br>Emission limit   | Discussion   |
|---|--|--|
| Fuel use: space heaters fueled by natural gas                                       | PM $\leq$ 0.6 or 0.4 lb/MMBtu, depending on year constructed<br>Opacity $\leq$ 20% with exceptions<br>(Minn. R. 7011.0515) | For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.                        |
| Infrared Electric Ovens   | Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110)   | These units are not likely to have any emissions of particulate matter (used to dry parts). It is highly unlikely that they could violate the applicable requirement.  |
| Brazing, soldering, or welding  | PM, variable depending on airflow<br>Opacity $\leq$ 20%<br>(Minn. R. 7011.0710/715)  | For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.   |
| Individual units with actual emissions less than 2000 lb/year of certain pollutants | PM, variable depending on airflow<br>Opacity $\leq$ 20% (with exceptions)<br>(Minn. R. 7011.0715 and Minn. R. 7011.610)    | These are natural gas combustion units. Based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, most of these units are operated and vented inside a building, so testing for PM or opacity is not feasible. |



| <b>Insignificant Activity</b>  | <b>General Applicable Emission limit</b>  | <b>Discussion</b>  |
|--|---|--|
| Fugitive Emissions from unpaved roads and parking lots   | Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150) | The permit does contain a general requirement that this standard must be met.  |
| Equipment venting PM/PM <sub>10</sub> inside a building 100% of the time provided that emissions from the equipment are filtered through an air cleaning system. | PM, variable depending on airflow<br>Opacity ≤ 20%<br>(Minn. R. 7011.0715)                        | These are controlled wood working units that are vented inside the building. The calculated PTE for these units is significantly less than the applicable limits. In addition, these units are vented inside a building, so testing for PM or opacity is not feasible. |

### **3.6 Permit Organization**

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One item that deviates from guidance is the listing of certain applicable requirements at the group level even though they apply at the individual unit or control device. Specifically: the direct heating rule is listed at GP 005, the IPER is listed at GP 002 and GP 003, the control equipment requirements are listed at GP 004, 007, and 008, and the indirect heating rule is listed at GP 009. In general, limits that apply to individual pieces of equipment should be tracked at the unit level and should not be listed as a GP. The main reason is if there is noncompliance with a limit by one unit within the group, the computer system would say the whole group was out of compliance. This is a computer tracking issue.

For IPER and the direct and indirect heating rules, either the permit has other limits on the various units that ensure that the applicable requirement will be met, or the units by design are not likely to violate the limits. Therefore, it is highly unlikely that we would need to track noncompliance with these limits at the individual unit level.

For the control equipment, these are fairly standard conditions based on Minnesota rules and it is unlikely that we would need to track noncompliance with these requirements at the individual control equipment level. Listing these individually would lengthen the permit by over 50 pages.

### **3.7 Comments Received**

No comments were received during the public notice or EPA review periods.

Public Notice Period: 4/24/08 – 5/23/08

EPA 45-day Review Period: 4/24/08 – 6/9/08

#### **4 Conclusion**

Based on the information provided by Mid Continental Cabinetry, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 08300023-003, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:      Peggy Bartz (permit engineer)  
   Sarah Kilgriff (enforcement)  
   Bruce Braaten (peer reviewer)

Attachments:    1. PTE Summary and Calculation Spreadsheets  
                      2. Facility Description and CD-01 Forms  
                      3. CAM Plan



**ATTACHMENT 1**  
**PTE SUMMARY AND CALCUALTION SPREADSHEETS (MPCA)**  
**(Excel Spreadsheets, paper copy only)**



**ATTACHMENT 2**  
**FACILITY DESCRIPTION and CD-01 FORMS**  
**(Delta Printouts, paper copy only)**



**ATTACHMENT 3**  
**CAM Plan (Permittee)**





## Compliance Assurance Monitoring

Mid Continent Cabinetry

### I. Background

#### A. Emission Units

Description: Hand Operated Spray Booths  
MPCA ID: EU002 (CE002), EU003 (CE003), EU004 (CE004), EU032 (CE012),  
EU033 (CE013), EU034 (CE014), EU035 (CE015), & EU037 (CE017)  
Facility: Mid Continent Cabinetry  
67 East Second Street North  
Cottonwood, MN 56229

#### B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulation: Part 70 Permit No. 08300023-002  
Emission Limits:  
Particulate Matter: 92% Control Efficiency  
Monitoring Requirements: Daily visual filter inspections and operation & maintenance plan

#### C. Control Technology

Mat or Panel Filter

### II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A.

|                                       | Indicator #1   | Indicator #2   |
|---------------------------------------|--|--|
| I. Indicator                          | Filter Condition Inspection  | Inspection/maintenance   |
| Measurement Approach                  | Visual inspection of the condition of each filter with respect to alignment, saturation, tears, holes, and any other condition that may reduce filter performance. | Control equipment components are inspected at least once per calendar quarter or more frequent if required by manufacturer specifications. |
| II. Indicator Range                   | The indicator range is any visual condition that may reduce filter performance.  | NA   |
| III. Performance Criteria             | Observations are performed in front of the filters during operation.   | Inspections are performed at the control equipment locations.  |
| A. Data Representativeness            | NA   | NA   |
| B. Verification of Operational Status | Observer is trained to perform visual inspections.   | Qualified personnel perform inspection.  |
| C. QA/QC Practices and Criteria       | Once per operating day.  | Minimum quarterly inspections.   |
| D. Monitoring Frequency               | Recorded by personnel on paper.  | Records are maintained to document the inspections and maintenance performed.  |
| Data Collection Procedures            |  |  |

## MONITORING APPROACH JUSTIFICATION

### I. Background

Mid Continent Cabinetry is a manufacturer of wood kitchen cabinetry. The approach outlined here applies to eight control units (CE002, CE003, CE004, CE012, CE013, CE014, CE015 & CE017). These eight control units control emissions from the coating of wood kitchen cabinets (EU002, EU003, EU004, EU032, EU033, EU034, EU035 & EU037).

### II. Rationale for Selection of Performance Indicators

A visible inspection was selected as a performance indicator because it is indicative of good operation and maintenance of the mat or panel filters. When a mat or panel filter is operating optimally, there will be no visible alignment problems, tears, saturation, holes or any other condition that may reduce the filter performance.

Implementation of control equipment inspection and maintenance program provides assurance that the control equipment is in good repair and operating properly. At least quarterly inspections of the control equipment ensure that the operation of the moving parts, nonmoving parts, and filters are all in proper operating condition.

### III. Rationale for Selection of Indicator Ranges

The indicator range is the visual inspection of the condition of each filter with respect to alignment, saturation, tears, holes, and any other condition that may reduce filter performance. This indicator was established based upon the facilities permit requirements and historical operating data. Generally, under normal operating conditions, filters that are operating properly will not have alignment problems, tears, holes, be saturated, or have any other condition that may reduce filter performance.

No performance tests have been conducted on these control units. Manufacturer data indicates that the filters will operate at 92% efficiency or higher if the filters are properly installed and maintained by the facility personnel.