

DRAFT/PROPOSED

**AIR EMISSION PERMIT NO. 13500002-005
Total Facility Operating. Permit - Reissuance**

IS ISSUED TO

Marvin Lumber & Cedar Co

Marvin Windows & Doors
401 States Avenue
Warroad, Roseau County, MN 56763

The emission units, control equipment and emission stacks at the stationary source authorized in this permit reissuance are as described in the Permit Applications Table.

The conditions included in Stage 1 of this permit action are effective on the Stage 1 Issuance Date shown below. Stage 1 conditions authorize modification of the facility and the operation of the new emissions units at the address listed above until final action is taken on Stage 2. Air Emission Permit No. 13500002-004 remains effective until the Stage 2 Issue Date shown below.

Beginning on the Stage 2 Issue Date shown below, Air Emission Permit No. 13500002-005 supersedes Air Emission Permit No. 13500002-004 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.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal; Part 70/Major for NSR/Limits to Avoid NSR

Operating Permit Issue Date: < >

Stage 1 Issue Date – Authorization to Construct and Operate: <date1>

Stage 2 Issue Date – Major Amendment: <date2>

Operating Permit Expiration: < > -- All Title I Conditions do not expire.

Stage 1 Issuance

Stage 2 Issuance:

	<hr/>		<hr/>
	Don A. Smith, Manager		Don A. Smith, Manager
	Air Quality Permits Section		Air Quality Permits Section
	Industrial Division		Industrial Division
for	John Stine	for	John Stine
	Commissioner		Commissioner
	Minnesota Pollution Control Agency		Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit - Reissuance	9/7/2011	005
Minor Amendment	9/16/2011	005
Major Amendment	7/26/2012	005

XX:xx

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

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

FACILITY DESCRIPTION:

Marvin Lumber and Cedar Company (the Permittee) owns and operates Marvin Windows and Doors (the Facility). The Facility manufactures wood windows and doors for residential and commercial application.

The manufacturing process consists mainly of wood milling, wood treatment, assembly, coating, and shipping. The Facility also has several boilers and emergency generators as well as several processes that qualify as insignificant activities. The main emissions are Volatile Organic Compounds (VOC), Particulate Matter (PM/PM₁₀/PM_{2.5}) and various other pollutants from the combustion of wood, diesel fuel, natural gas, and propane.

This permit action also authorizes the installation and operation of new coating operations and associated electric ovens, EU488 – EU493. The modification is not subject to federal Prevention of Significant Deterioration regulations, due to enforceable conditions incorporated in the permit.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

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
FACILITY SPECIFIC REQUIREMENTS	hdr
The Permittee is authorized to install and operate the following sources: EU488 (CE071/CE072, SV081), EU489 (CE073/CE074, SV082), EU490 (SV083), EU491 (CE075/CE076, SV084), EU492 (SV085), and EU493 (CE077/CE078, SV086), within 18 months after issuance of Permit 13500002-005. The units shall meet all the applicable requirements of this permit - see Subject Items GP013, GP026, GP027, EU488, EU489, EU491, and EU493.	[Stage 1] To avoid classification of changes as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
<p>All wood milling equipment of the types included in GP001, GP002, GP003, GP004, GP005, GP006, GP009, GP011, GP021, and/or GP024, including existing, modified, new, and replacement equipment, shall be included in and subject to the requirements of one of those groups.</p> <p>Operation of the control equipment listed in GP022 is federally enforceable for such equipment and may be considered when determining if a change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.</p> <p>If it is determined that new or replacement milling equipment does not require a permit action, the Permittee shall keep records of the change, including calculations supporting the decision, all information required by MPCA Form GI-05B, and the Group that the equipment is included in. This information shall be submitted annually as described in Table B.</p>	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Parameters Used in Modeling: The stack heights, emission rates, and other parameters used in the modeling for Air Emission Permit No. 1001A-93-OT-1 are listed in Appendix III of this permit. The Permittee must submit to the Commissioner for approval any revisions of these parameters and must wait for a written approval before making such changes. The information submitted must include, at a minimum, the locations, heights and diameters of the stacks, locations and dimensions of nearby buildings, the velocity and temperatures of the gases emitted, and the emission rates. The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics modeled for Air Emission Permit No. 1001A-93-OT-1.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
<p>The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.</p> <p>For changes that do not involve an increase in an emission rate and that do not require a permit amendment, this proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the stack or associated emission unit.</p> <p>For changes involving increases in emission rates and that require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the stack or associated emission unit.</p> <p>For changes involving increases in emission rates and that require a permit amendment other than a minor amendment, the proposal must be submitted with the permit application.</p>	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The facility currently uses ozone-depleting substances as defined in 40 CFR Section 82. Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR Section 82 may apply to the facility. Read Sections 601-618 and 40 CFR Section 82 to determine all the requirements that apply to the facility.	40 CFR Section 82
Personnel repairing or servicing MVACs or MVAC-like appliances must use equipment approved pursuant to 40 CFR Section 82.36 and be properly trained and certified by a technician certification program approved by the Administrator pursuant to 40 CFR Section 82.40.	40 CFR Section 82, subp. B; 40 CFR Section 82.34

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Refrigerant recycling equipment must be certified by the Administrator or an independent standards testing organization approved by the Administrator under 40 CFR Section 82.38 to meet the standards in subp. B, Appendices A-F.	40 CFR Section 82.36
Any person who owns approved refrigerant recycling equipment certified under 40 CFR Section 82.36(a)(2) must maintain records of the name and address of any facility to which refrigerant is sent. Any person who owns approved refrigerant recycling equipment must retain records demonstrating that all persons authorized to operate the equipment are currently certified under 40 CFR Section 82.40. Maintain records on-site for a minimum of three years.	40 CFR Section 82.42(b)
Technicians must be certified by an approved program.	40 CFR Section 82.161
Certify that approved refrigerant recycling equipment is being used.	40 CFR Section 82.162
(k) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep servicing records documenting the date and type of service, as well as the quantity of refrigerant added. The owner/operator must keep records of refrigerant purchased and added to such appliances in cases where owners add their own refrigerant. (l) Maintain a copy of technician certifications. (m) Records must be kept for a minimum of three years.	40 CFR Section 82.166(k), (l) and (m)
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
These requirements apply if a reasonable possibility (RP) as defined in 40 CFR Section 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of Section 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000
Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <p>a. The name and ID number of the facility, and the name and telephone number of the facility contact person</p> <p>b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded.</p> <p>c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.</p>	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5
OPERATIONAL REQUIREMENTS	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, subp. 7(A), 7(L), & 7(M); 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.	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
PERFORMANCE TESTING	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
<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test</p> <p>Performance Test Plan: due 30 days before each Performance Test</p> <p>Performance Test Pre-test Meeting: due 7 days before each Performance Test</p> <p>Performance Test Report: due 45 days after each Performance Test</p> <p>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 an alternative format as allowed by Minn. R. 7017.2018.</p>	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

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.	Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
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.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date 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.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 - 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 001 Wood Milling Equipment 1**Associated Items:** CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 029 Centrifugal Collector - Medium Efficiency

CE 030 Centrifugal Collector - Medium Efficiency

CE 031 Centrifugal Collector - Medium Efficiency

EU 057 Grinder

EU 058 Multi-Rip

EU 059 Band Re-Saw

EU 060 Saw Cutoff

EU 064 Saw Cutoff

EU 068 Saw Cutoff

EU 069 Saw Cutoff

EU 070 Cutback Saw

EU 072 Saw Cutoff

EU 073 Moulder

EU 077 Saw Scan

EU 078 Rerip Saw

EU 079 Chop Saw

EU 093 Sander Belt

EU 347 Saw Rip

EU 372 Saw Cutoff

EU 378 Saw Cutoff

EU 383 Saw Radial Arm

EU 390 Saw Cutoff

EU 401 Saw Cutoff

EU 407 Bandsaw

SV 001 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 61,200 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE007. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

All wood milling equipment controlled by CE007 (or equipment replacing CE007 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP001. Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2013 to measure Total Particulate Matter emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2013 to measure PM10 emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 002 Wood Milling Equipment 2**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 032 Centrifugal Collector - Medium Efficiency

CE 033 Centrifugal Collector - Medium Efficiency

CE 034 Centrifugal Collector - Medium Efficiency

CE 035 Centrifugal Collector - Medium Efficiency

CE 036 Centrifugal Collector - Medium Efficiency

CE 037 Centrifugal Collector - Medium Efficiency

CE 038 Centrifugal Collector - Medium Efficiency

CE 039 Centrifugal Collector - Medium Efficiency

EU 081 Moulder

EU 082 Moulder

EU 084 Moulder

EU 085 Moulder

EU 087 Moulder

EU 088 Moulder

EU 089 Moulder

EU 090 Moulder

EU 092 D/E Tenoner

EU 095 Moulder

EU 131 D/E Tenoner

EU 333 Saw Rerip

EU 389 Moulder

SV 002 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 91,800 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE001. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000 ; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE001 (or equipment replacing CE001 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP002.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING	hdr

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2014 to measure Total Particulate Matter emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2014 to measure PM10 emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 003 Wood Milling Equipment 3**Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 040 Centrifugal Collector - Medium Efficiency

CE 041 Centrifugal Collector - Medium Efficiency

CE 042 Centrifugal Collector - Medium Efficiency

EU 080 Chop Saw

EU 098 Saw Cutoff

EU 099 D/E Tenoner

EU 100 D/E Tenoner

EU 103 D/E Tenoner

EU 104 Drilling Machine

EU 105 Drilling Machine

EU 106 Shaper

EU 108 Saw Radial Arm

EU 110 Linear Cutoff Saw

EU 113 Saw Radial Arm

EU 116 D/E Tenoner

EU 117 D/E Tenoner

EU 119 Band Saw

EU 120 D/E Tenoner

EU 147 Single End

EU 348 Saw Thin Cut

EU 358 Cleaner

EU 370 Saw Cutoff

EU 377 Chop Saw

EU 411 D/E Tenoner

SV 003 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 76,500 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE003. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

All wood milling equipment controlled by CE003 (or equipment replacing CE003 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP003. Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2010 to measure Total Particulate Matter emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2010 to measure PM10 emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 004 Wood Milling Equipment 4**Associated Items:** CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 023 Centrifugal Collector - Low Efficiency

CE 024 Centrifugal Collector - Medium Efficiency

CE 025 Centrifugal Collector - Medium Efficiency

EU 121 Saw Cutoff

EU 122 Saw Cutoff

EU 123 Saw Cutoff

EU 124 Finger Jointer

EU 125 Finger Jointer

EU 126 Finger Jointer

EU 408 Saw Cutoff (FJ)

EU 409 Saw Cutoff (FJ)

EU 410 Saw Cutoff (FJ)

SV 004 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 46,000 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE005. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE005 (or equipment replacing CE005 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP004.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2017 to measure Total Particulate Matter emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2017 to measure PM10 emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 005 Wood Milling Equipment 5**Associated Items:** CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 026 Centrifugal Collector - Medium Efficiency

CE 027 Centrifugal Collector - Medium Efficiency

CE 028 Centrifugal Collector - Medium Efficiency

EU 127 Moulder

EU 128 Moulder

EU 129 Moulder

EU 130 D/E Tenoner

EU 132 D/E Tenoner

EU 319 D/E Tenoner

EU 402 Saw Table

SV 005 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 115,300 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE009. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE009 (or equipment replacing CE009 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP005.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 10/31/2009 to measure Total Particulate Matter emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 10/31/2009 to measure PM10 emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 006 Wood Milling Equipment 6**Associated Items:** CE 019 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 096 Saw

EU 133 Single End

EU 134 Single End

EU 135 Saw Radial Arm

EU 137 Saw Radial Arm

EU 138 Saw Cutoff

EU 139 Linear Cutoff Saw

EU 140 Saw

EU 141 Saw

EU 142 Single End

EU 143 CNC Router

EU 149 Chop Saw

EU 150 Chop Saw

EU 319 D/E Tenoner

EU 329 Saw Chop

EU 351 Router

EU 376 Table Down Draft

EU 400 Single End

EU 404 Hardware Saw

EU 429 CNC Router

SV 006 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 57,600 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE019. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: To avoid a classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE019 (or equipment replacing CE019 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP006.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING	hdr

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2015 to measure Total Particulate Matter emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2015 to measure PM10 emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-16**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 009 Wood Milling Equipment 9**Associated Items:** CE 020 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 114 Saw Table

EU 151 Single End

EU 152 Single End

EU 153 Shaper

EU 154 Shaper

EU 155 Single End

EU 156 Planer

EU 157 Sander Belt

EU 158 Chop Saw

EU 159 Single End

EU 160 Chop Saw

EU 161 Moulder

EU 162 Moulder

EU 163 D/E Tenoner

EU 164 Router (CNC)

EU 165 Single End

EU 166 Single End

EU 168 Shaper

EU 169 Shaper

EU 171 Shaper

EU 172 Saw Rip

EU 173 Saw

EU 174 Sander Belt

EU 175 Saw

EU 177 Saw

EU 178 Lockrouter/Single Dr

EU 179 Saw Radial Arm

EU 180 Saw Radial Arm

EU 182 Saw Radial Arm

EU 184 Saw Radial Arm

EU 186 Saw Radial Arm

EU 188 Saw Radial Arm

EU 189 Saw Radial Arm

EU 190 Band Saw

EU 191 Band Saw

EU 192 Band Saw

EU 193 Band Saw

EU 194 Band Saw

EU 195 Band Saw

EU 196 Saw Table

EU 197 Saw Table

EU 198 Saw Table

EU 200 Saw Table

EU 201 Saw Table

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-17**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items:

- EU 202 Saw Table
- EU 203 Saw Table
- EU 204 Saw Table
- EU 205 Saw Table
- EU 206 Single End
- EU 208 Saw
- EU 209 Shaper
- EU 210 Shaper
- EU 211 Shaper
- EU 212 Shaper
- EU 213 Shaper
- EU 214 Shaper
- EU 215 Shaper
- EU 216 Shaper
- EU 217 Shaper
- EU 218 Shaper
- EU 219 Shaper
- EU 220 Shaper
- EU 221 Shaper
- EU 222 Shaper
- EU 223 Shaper
- EU 224 Shaper
- EU 225 Shaper
- EU 226 Shaper
- EU 227 Shaper
- EU 228 Shaper
- EU 229 Shaper
- EU 230 Shaper
- EU 231 Shaper
- EU 232 Shaper
- EU 233 Shaper
- EU 234 Shaper
- EU 235 Router
- EU 236 Shaper
- EU 237 Shaper
- EU 238 Planer
- EU 239 Planer
- EU 241 Sander Belt
- EU 242 Sander Belt
- EU 243 Sander Belt
- EU 244 Sander Belt
- EU 245 Sander Belt
- EU 246 Sander Disc
- EU 247 Sander Disc
- EU 248 Sander Disc
- EU 249 Sander Disc

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-18**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items:

- EU 250 Sander Disc
- EU 251 Sander Disc
- EU 252 Sander Disc
- EU 253 Sander Disc
- EU 254 Sander Disc
- EU 255 Sander Disc
- EU 256 Sander Disc
- EU 257 Chop Saw
- EU 258 Shaper
- EU 259 Router Table
- EU 260 Router Table
- EU 261 Router
- EU 262 Router
- EU 263 Saw Radial Arm
- EU 264 Shaper
- EU 267 Saw Woodbead
- EU 268 Saw Radial Arm
- EU 269 Coper
- EU 270 Band Saw
- EU 271 Planer
- EU 272 Sander Vertical
- EU 273 Saw Radial Arm
- EU 274 Single End
- EU 275 Single End
- EU 276 Saw Table
- EU 277 Band Saw
- EU 278 Sander Belt
- EU 279 Mortiser
- EU 280 Sander Disc
- EU 281 Chop Saw
- EU 282 Chop Saw
- EU 283 Chop Saw
- EU 284 Chop Saw
- EU 285 Chop Saw
- EU 286 Chop Saw
- EU 291 Chop Saw
- EU 292 Chop Saw
- EU 293 Shaper
- EU 294 Chop Saw
- EU 295 Chop Saw
- EU 296 Chop Saw
- EU 297 Router
- EU 299 Router
- EU 300 Router
- EU 301 Router
- EU 302 Router

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-19**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items:

- EU 303 Router
- EU 304 Router
- EU 305 Router
- EU 306 Chop Saw
- EU 307 Chop Saw
- EU 308 Chop Saw
- EU 309 Chop Saw
- EU 310 Router Table
- EU 311 Chop Saw
- EU 313 Sander Drum
- EU 324 Slotter
- EU 325 Sander Disc
- EU 326 Saw Band
- EU 327 Router
- EU 328 Shaper
- EU 331 Router
- EU 334 Sander Disc
- EU 335 Router Table
- EU 336 Shaper
- EU 337 Router
- EU 339 Planer
- EU 340 Saw Band
- EU 342 Router
- EU 343 Shaper
- EU 344 Table Work
- EU 345 Shaper
- EU 346 Saw Chop
- EU 352 Saw Miter
- EU 353 Saw Chop
- EU 354 Sander Belt
- EU 355 Saw Shop
- EU 356 Saw Radial Arm
- EU 357 Router
- EU 359 Router
- EU 360 Sander
- EU 361 Router
- EU 362 Planer
- EU 363 Saw Miter
- EU 364 Saw Miter
- EU 365 Saw Miter
- EU 366 Saw Miter
- EU 367 Saw Miter
- EU 368 Saw Miter
- EU 369 Sander Belt
- EU 373 Sander
- EU 379 Table Saw

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

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items:

- EU 380 Single End
- EU 381 Sander
- EU 384 Single End
- EU 386 Chop Saw
- EU 387 Chop Saw
- EU 391 Shaper
- EU 392 Table Saw
- EU 393 Half Lap
- EU 394 Coper
- EU 395 Sander
- EU 396 Coper
- EU 397 Band Saw
- EU 398 Shaper
- EU 399 Shaper
- EU 403 Drill
- EU 412 Router
- EU 413 Saw Shaper
- EU 414 Saw Table
- EU 416 Saw Table
- EU 417 Saw Table
- EU 418 Chop Saw
- EU 419 Chop Saw
- EU 420 Sander
- EU 421 Sander
- EU 422 Planer
- EU 423 Chop Saw
- EU 424 Band Saw
- EU 425 Chop Saw
- EU 426 Planer
- EU 427 Table, Work
- EU 428 Chop Saw
- EU 430 Coper
- EU 431 Coper
- EU 432 Saw Chop
- EU 433 Saw Chop
- EU 434 Chop Saw
- EU 435 Chop Saw
- EU 438 Shaper
- EU 439 Drill
- EU 440 Single End
- EU 441 Sander/Planer
- EU 442 Coper
- EU 443 Slotter
- EU 444 Saw, Radial Arm
- EU 445 Saw, Undertable
- EU 452 Coper

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-21**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items: EU 453 Router
 EU 479 Saw Chop
 EU 482 Saw Chop
 EU 483 Saw Radial Arm
 EU 484 Shaper
 EU 485 Router
 EU 486 Router
 EU 487 Single End
 EU 494 Table Down Draft
 EU 495 Sander Table
 SV 009 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 140,849 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE020. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE020 (or equipment replacing CE020 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP009. Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 10/31/2008 to measure Total Particulate Matter emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 10/31/2008 to measure PM10 emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-22**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 011 Wood Milling Equipment 11**Associated Items:** CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 314 Tub Grinder 1

EU 316 Vortex Grinder

SV 011 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 140,849 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE021. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE021 (or equipment replacing CE021 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP011.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2016 to measure Total Particulate Matter emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due before 12/31/2016 to measure PM10 emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-23**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 012 Boilers 5 & 6**Associated Items:** CE 017 Electrostatic Precipitator - High Efficiency

CE 043 Centrifugal Collector - Medium Efficiency

CE 044 Centrifugal Collector - Medium Efficiency

EU 014 Boiler 5 Wood Fired

EU 015 Boiler 6 Wood Fired

SV 027 Boiler 5 & 6 Exhaust

SV 028 Boiler 5 & 6 Exhaust Bypass

What to do	Why to do it
EMISSION LIMITS AND OPERATING REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.1 lbs/million Btu heat input using 3-hour Average . This limit applies to the combined emissions from the boilers.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.1 lbs/million Btu heat input using 3-hour Average	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input using 3-hour Average . This limit applies to the combined emissions from the boilers.	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. This limit applies to the combined emissions from the boilers.	Minn. R. 7011.0515, subp. 2
Allowed Fuels: The Permittee shall burn only wood, as defined in Minn. R. 7011.1201, subp. 48, in GP012.	Minn. R. 7007.0800, subp. 2
By the 15th day of each month, the Permittee shall record and maintain the quantity of fuel used at GP012 for the previous month calculated from boiler water use. Permittee shall only burn wood and woodwaste.	Minn. R. 7007.0800, subp. 4 and 5
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall vent emissions from EU015 to CE044 and CE017, operated in series, any time that EU015 is in operation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall vent emissions from EU014 to CE043 and CE017, operated in series, any time that EU014 is in operation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall operate and maintain CE017, CE043 and CE044 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 76 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 73.5 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Number of Fields Online: greater than or equal to 2 fields online for CE017, unless a new minimum 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.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
CONTROL EQUIPMENT MONITORING REQUIREMENTS	hdr
Visible Emissions: The Permittee shall check the stacks for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 2
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording the number of field online as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored electrostatic precipitator 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 or electronic record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
CONTROL EQUIPMENT RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Visible Emissions. 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, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-24**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Recordkeeping of Number of Fields Online: The Permittee shall record the date of each number of fields online reading and whether or not the recorded number was equal to or greater than the minimum value specified in this permit.	Minn. R. 7007.0800, subp. 4 and 5
Corrective Actions: If the electrostatic precipitator or any of its 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. The Permittee shall keep a written or electronic record of the type and date of any corrective action taken for the electrostatic precipitator.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: If the centrifugal collectors 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. The Permittee shall keep a written or electronic record of the type and date of any corrective action taken for each centrifugal collector.	Minn. R. 7007.0800, subp. 4, 5 and 14
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 12/07/2011 to measure Total Particulate Matter and PM10 emissions from EU014 and EU015 combined.	Title I Condition: Performance testing for limit under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
NESHAP REQUIREMENTS	hdr
The Permittee shall conduct a tune-up of the boiler biennially. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. The date by which the Permittee must be in compliance with this requirement is March 21, 2012.	40 CFR Section 63.11201; 40 CFR Section 63.11196(a)(1); 40 CFR Section 63.11223(a)
The biennial tune-up must be conducted as follows: (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. (Burner inspection may be delayed until the next scheduled unit shutdown, but each burner must be inspected at least once every 36 months.) (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available. (continued below)	40 CFR Section 63.11223(b)
(continued from above) (5) Measure the concentrations in the effluent stream of carbon monoxide in ppmv, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). (6) Maintain onsite and submit, if requested, biennial report containing the following information: (i) The concentration of CO in the effluent stream in ppmv, and oxygen in volume percent, measured before and after the boiler tune-up. (ii) A description of any corrective actions taken as part of the boiler tune-up. (iii) The type and amount of fuel used over the 12 months prior to the boiler tune-up. (7) If the unit is not operating on the required date of the tune-up, the tune-up must be conducted within one week of startup.	40 CFR Section 63.11223(b)
The Permittee must conduct the performance tune-up according to the requirements of 40 CFR Section 63.11223(b) and must submit a signed statement in the Notification of Compliance Status report that indicates that the boiler tune-up was conducted.	40 CFR Section 63.11214(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-25**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>The Permittee must have a one-time energy assessment performance by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements below satisfies the energy assessment requirement. The energy assessment must be completed by March 21, 2014, and must include:</p> <p>(1) A visual inspection of the boiler system,</p> <p>(2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,</p> <p>(3) Inventory of major systems consuming energy from the affected boiler(s),</p> <p>(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,</p> <p>(continued below)</p>	40 CFR Section 63.11201; 40 CFR Section 63.11196(a)(3)
<p>(continued from above)</p> <p>(5) A list of major energy conservation measures,</p> <p>(6) A list of the energy savings potential of the energy conservation measures identified, and</p> <p>(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</p>	40 CFR Section 63.11201
<p>The Permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.</p>	40 CFR Section 63.11214(b)
<p>At all times, the Permittee must operate and maintain the boiler, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.</p>	40 CFR Section 63.11205(a)
<p>The Permittee shall submit the Notification of Compliance Status in accordance with 40 CFR Section 63.9(h) no later than 120 days after the applicable compliance date specified in 40 CFR Section 63.11196. In addition to the information required in 40 CFR Section 63.9(h)(2), the notification must include the following certifications of compliance, as applicable, and be signed by a responsible official:</p> <p>(i) "This facility complies with the requirements in 40 CFR Section 63.11214 to conduct an initial tune-up of the boiler."</p> <p>(ii) "This facility has had an energy assessment performed according to 40 CFR 63.11214(c)."</p>	40 CFR Section 63.11225(a)(4)
<p>The Permittee must by prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information listed below. You must submit the report by March 15 if any instance described by item (3) occurred. For boilers subject only to a requirement to conduct a biennial tune-up according to 40 CFR Section 63.11223(a) and not subject to emission limits or operating limits from Subpart JJJJJJ, the Permittee may prepare only a biennial compliance report, instead of a semi-annual compliance report.</p> <p>(continued below)</p>	40 CFR Section 63.11225(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-26**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>(continued from above)</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of Subpart JJJJJJ.</p> <p>(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.</p>	40 CFR Section 63.11225(b)
<p>The Permittee must maintain the following records:</p> <p>(1) As required by 40 CFR Section 63.10(b)(2)(xiv), keep a copy of each notification and report submitted to comply with Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted.</p> <p>(2) Keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR Section 63.11214, as follows:</p> <p>(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.</p> <p>(continued below)</p>	40 CFR Section 63.11225(c)
<p>(continued from above)</p> <p>(ii) Records documenting the fuel types used monthly by each boiler including but not limited to a description of the fuel, including whether the fuel has received a non-waste determination, and the total fuel usage amount with units of measure. If combusting non-hazardous secondary materials determined not to be solid waste pursuant to 40 CFR Section 241.3(b)(1), keep a record which documents how the secondary material meets each of the legitimacy criteria. If combusting a fuel processed from a discarded non-hazardous secondary material pursuant to 40 CFR Section 241.3(b)(4), keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR Section 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR Section 241.3(c), keep a record that documents how the fuel satisfies the requirements of the petition process.</p> <p>(continued below)</p>	40 CFR Section 63.11225(c)
<p>(continued from above)</p> <p>(3) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.</p> <p>(4) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR Section 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.</p> <p>(5) Records of all inspection and monitoring data required by 40 CFR Sections 63.11221 and 63.11222, and the information identified below for each required inspection or monitoring.</p> <p>(continued below)</p>	40 CFR Section 63.11225(c)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-27**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>(continued from above)</p> <ul style="list-style-type: none"> (i) The date, place, and time of the monitoring event. (ii) Person conducting the monitoring. (iii) Technique or method used. (iv) Operating conditions during the activity. (v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation. (vi) Maintenance or corrective action taken (if applicable). 	40 CFR Section 63.11225(c)
<p>Records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), each record must be kept for 5 years following the date of each recorded action. Keep each record onsite for at least 2 years after the date of each recorded action according to 40 CFR Section 63.10(b)(1). Records may be kept off site for the remaining 3 years.</p>	40 CFR Section 63.11225(d)
<p>If the Permittee intends to switch fuels, and this fuel switch may result in the applicability of a different subcategory or a switch out of subpart JJJJJJ due to a switch to 100 percent natural gas, provide 30 days prior notice of the date upon which the fuel switch will occur. The notification must identify:</p> <ul style="list-style-type: none"> (1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice. (2) The currently applicable subcategory under this subpart. (3) The date on which the boiler became subject to the currently applicable standards. (4) The date upon which the fuel switch will commence. 	40 CFR Section 63.11225(g)
<p>The following sections of the General Provisions apply:</p> <p>63.1; 63.2; 63.3; 63.4; 63.6(a), (b)(1)-(5), (b)(7), (c), (f)(2)-(3), (g), (i), & (j); 63.9; 63.10(a), (b)(1), (b)(2)(iii), (d)(1)-(2), (d)(4), & (f); 63.12; 63.13; 63.14; 63.15; 63.16.</p>	40 CFR Section 63.11235

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-28**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 013 Ovens and Air Make Up**Associated Items:** EU 042 Wood Bead Primer#1/Munt Primers Oven

EU 046 P2 Prime Line 2 Oven

EU 048 3 Stage Fan Coater Oven

EU 322 P2 Prime Line 3 Oven

EU 447 IF Line#1/Booth#1 Oven (shared)

EU 450 IF Booth #2 Oven

EU 454 Air Make-up, Bldg 6

EU 490 CSI Auto Lineal Line #1, Oven #1

EU 492 CSI Auto Lineal Line #1, Oven #2

SV 019 Paint Emissions

SV 021 Paint Emissions

SV 022 Paint Emissions

SV 044 Paint Emissions

SV 054 IF Line #1/Booth #1 Oven (shared)

SV 057 IF Booth #2 Oven

SV 058 Air Make-up, Bldg 6

SV 083 CSI Auto Lineal Line #1, Oven #1

SV 085 CSI Auto Lineal Line #1, Oven #2

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. This limit applies individually to each Associated Item.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity. This limit applies individually to each Associated Item.	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-29**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 014 Diesel Engines I

Associated Items:

- EU 016 Diesel Generator - South Bldg
- EU 017 Diesel Generator - South Bldg
- EU 018 Diesel Generator - Bldg 3A
- EU 019 Diesel Generator - Bldg 6
- EU 020 Diesel Generator - Boiler House
- EU 021 Diesel Generator - Boiler House
- EU 022 Diesel Generator - Boiler House
- SV 029 Diesel Generator Exhaust
- SV 030 Diesel Generator Exhaust
- SV 031 Diesel Generator Exhaust
- SV 032 Diesel Generator Exhaust
- SV 033 Diesel Generator Exhaust
- SV 034 Diesel Generator Exhaust
- SV 035 Diesel Generator Exhaust
- SV 036 Diesel Generator Exhaust

What to do	Why to do it
The following requirements of this group apply to each item listed under the group.	Minn. R. 7007.0800, subp. 2
LIMITS	hdr
Fuel Type: Diesel fuel only by design.	Minn. R. 7005.0100, subp. 35a
Operating Hours: less than or equal to 600 hours/year using 12-month Rolling Sum to be calculated monthly by the 15th day of the month for the previous 12 months.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (the potential to emit calculations are based on 0.2 lbs/million BTU heat input)	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
MONITORING	hdr
Hours of Operating Monitoring: The Permittee shall maintain and operate an hours meter on the generator and shall record the hours of operation on the first day of each calendar month for the previous calendar month.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Monthly Hours of Operation Calculation: By the 15th day of the month, the Permittee shall calculate and record the 12-month Rolling Sum hours of operation for the previous 12-month period by summing the monthly hours data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
NESHAP REQUIREMENTS - Subpart ZZZZ	hdr
The engines must be in compliance with the requirements of Subpart ZZZZ no later than May 3, 2013.	40 CFR Section 63.6595(a)(1)
Carbon Monoxide: less than or equal to 23 parts per million by volume at 15% oxygen, or reduce CO emissions by 70 percent or more.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) by using an oxidation catalyst, the Permittee must: (a) maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst that was measured during the initial performance test; and (b) maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 450 degrees F and less than or equal to 1350 degrees F.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) without using an oxidation catalyst, the Permittee must comply with any operating limitations approved by the Administrator.	40 CFR Section 63.6603(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-30**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Diesel fuel must meet the requirements in 40 CFR Section 80.510(b) for non-road diesel fuel.	40 CFR Section 63.6604
The Permittee must be in compliance with the applicable emission limitations and operating limitations of Subpart ZZZZ at all times.	40 CFR Section 63.6605(a)
The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b)
Initial Performance Test: due 180 days after 05/03/2013 following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620	40 CFR Section 63.6612(a); 40 CFR Section 63.6620
An Initial Performance Test is not required for any engine for which a performance test has been previously conducted, provided the test meets all of the following conditions: (1) The test must have been conducted using the same methods specified in Subpart ZZZZ, and the methods must have been followed correctly; (2) The test must not be older than 2 years; (3) The test must be reviewed and accepted by the Administrator; and (4) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.	40 CFR Section 63.6612(b)
Performance Test: due before end of each 36 months following Initial Performance Test, or every 8760 hours of operation, whichever occurs first, following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620	40 CFR Section 63.6615; 40 CFR Section 63.6620
If complying with the CO reduction requirement using an oxidation catalyst, initial compliance has been demonstrated if: i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
If complying with the CO concentration requirement using an oxidation catalyst, initial compliance has been demonstrated if: i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limit; and ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
If complying with the CO reduction requirement without using an oxidation catalyst, initial compliance has been demonstrated if: i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and iii. The approved operating parameters (if any) were recorded during the initial performance test.	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-31**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>If complying with the CO concentration requirement without using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average CO concentration determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The the approved operating parameters (if any) were recorded during the initial performance test.</p>	<p>40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)</p>
<p>Each CPMS must be installed, operated, and maintained according to the following requirements:</p> <p>(1) The Permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) - (v) and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR Section 63.6625(b)(1) - (5) in the site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p> <p>(continued below)</p>	<p>40 CFR Section 63.6625(b)</p>
<p>(continued from above)</p> <p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p> <p>(2) The Permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes.</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(continued below)</p>	<p>40 CFR Section 63.6625(b)</p>
<p>(continued from above)</p> <p>(5) The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	<p>40 CFR Section 63.6625(b)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-32**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>If an engine is not equipped with a closed crankcase ventilation system, the Permittee must comply with either (1) or (2). Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g)
<p>Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.</p>	40 CFR Section 63.6625(h)
<p>(a) The Permittee must monitor and collect data according to this section.</p> <p>(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(c) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.</p>	40 CFR Section 63.6635
<p>For each engine that is not a limited use RICE and uses an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a)
<p>For each engine that is not a limited use RICE and does not use an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>	40 CFR Section 63.6640(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-33**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

For each limited use engine that uses an oxidation catalyst, demonstrate continuous compliance by: i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.	40 CFR Section 63.6640(a)
For each limited use engine that does not use an oxidation catalyst, demonstrate continuous compliance by: i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.	40 CFR Section 63.6640(a)
The Permittee must report each instance in which the applicable emission limitation or operating limitation was not met. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When reestablishing the values of the operating parameters, a performance test must be conducted to demonstrate that the required applicable emission limitation is being met.	40 CFR Section 63.6640(b)
Submit a Notification of Intent to Conduct a Performance Test at least 60 days before the test is scheduled to begin.	40 CFR Section 63.6645(g); 40 CFR Section 63.7(b)(1)
Submit a Notification of Compliance Status according to 40 CFR Section 63.9(h)(2)(ii). (1) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that does not include a performance test, the Notification of Compliance Status must be submitted before the close of business on the 30th day following the completion of the initial compliance demonstration. (2) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 to Subpart ZZZZ, the Notification of Compliance Status, including the performance test results, must be submitted before the close of business on the 60th day following the completion of the performance test according to 40 CFR Section 63.10(d)(2).	40 CFR Section 63.6645(h); 40 CFR Section 63.6630(c)
The Semiannual Compliance Report described in Table B of this permit may be submitted on the same schedule as the Semiannual Deviations Report, also described in Table B.	40 CFR Section 63.6650(b)(5)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>The Compliance report must contain the information in (1) through (6):</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p> <p>(continued below)</p>	<p>40 CFR Section 63.6650(c); 40 CFR Section 63.6650(e)</p>
<p>(continued from above)</p> <p>(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.</p>	<p>40 CFR Section 63.6650(c)</p>
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE where a CPMS to comply with the emission and operating limitations in this subpart, include information in 40 CFR Sections (c)(1)-(4) and (e)(1)-(12).</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p> <p>(continued below)</p>	<p>40 CFR Section 63.6650(e)</p>
<p>(continued from above)</p> <p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	<p>40 CFR Section 63.6650(e)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-35**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Report all deviations as defined in Subpart ZZZZ in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f)
<p>Keep the records of the following:</p> <p>(1) A copy of each notification and report submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.6655(a)
<p>Keep the following records for each CPMS.</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b)
Keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies.	40 CFR Section 63.6655(d)
<p>(a) Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660
<p>The following sections of the General Provisions apply. Submit all applicable notifications, and report all deviations from the requirements of the General Provisions.</p> <p>63.1 - 63.5; 63.6(a); 63.6(b)(1)-(5); 63.6(b)(7); 63.6(c)(1)-(2); 63.6(c)(5); 63.6(f)(2)-(3); 63.6(g)(1)-(3); 63.6(i)-(j); 63.7(a)(1)-(3); 63.7(b)(1)-(2); 63.7(c)-(d); 63.7(e)(2)-(4); 63.7(f)-(h); 63.9(a); 63.9(b)(1)-(5); 63.9(e); 63.9(h)(1)-(6); 63.9(i)-(j); 63.10(a); 63.10(b)(1); 63.10(b)(2)(vi)-(xii); 63.10(b)(2)(xiv); 63.10(b)(3); 63.10(d)(1)-(2); 63.10(d)(4); 63.10(e)(3); 63.10(f); 63.12 - 63.15</p>	40 CFR Section 63.6665; 40 CFR Section 63.6640(e); 40 CFR Section 63.6645(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-36**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 015 Diesel Engines II**Associated Items:** EU 024 Diesel Generator - North Bldg

EU 025 Diesel Generator - North Bldg

SV 038 Diesel Generator Exhaust

SV 039 Diesel Generator Exhaust

What to do	Why to do it
The following requirements of this group apply to each item listed under the group.	Minn. R. 7007.0800, subp. 2
LIMITS	hdr
Fuel Type: Diesel fuel only by design.	Minn. R. 7005.0100, subp. 35a
Operating Hours: less than or equal to 600 hours/year using 12-month Rolling Sum to be calculated monthly by the 15th day of the month for the previous 12 months.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (the potential to emit calculations are based on 0.2 lbs/million BTU heat input)	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
MONITORING	hdr
Hours of Operating Monitoring: The Permittee shall maintain and operate an hours meter on the generator and shall record the hours of operation on the first day of each calendar month for the previous calendar month.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Monthly Hours of Operation Calculation: By the 15th day of the month, the Permittee shall calculate and record the 12-month Rolling Sum hours of operation for the previous 12-month period by summing the monthly hours data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
NESHAP REQUIREMENTS - Subpart ZZZZ	hdr
The engines must be in compliance with the requirements of Subpart ZZZZ no later than May 3, 2013.	40 CFR Section 63.6595(a)(1)
Carbon Monoxide: less than or equal to 23 parts per million by volume at 15% oxygen, or reduce CO emissions by 70 percent or more.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) by using an oxidation catalyst, the Permittee must: (a) maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst that was measured during the initial performance test; and (b) maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 450 degrees F and less than or equal to 1350 degrees F.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) without using an oxidation catalyst, the Permittee must comply with any operating limitations approved by the Administrator.	40 CFR Section 63.6603(a)
Diesel fuel must meet the requirements in 40 CFR Section 80.510(b) for non-road diesel fuel.	40 CFR Section 63.6604
The Permittee must be in compliance with the applicable emission limitations and operating limitations of Subpart ZZZZ at all times.	40 CFR Section 63.6605(a)
The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b)
Initial Performance Test: due 180 days after 05/03/2013 following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620	40 CFR Section 63.6612(a); 40 CFR Section 63.6620

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-37**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>An Initial Performance Test is not required for any engine for which a performance test has been previously conducted, provided the test meets all of the following conditions:</p> <p>(1) The test must have been conducted using the same methods specified in Subpart ZZZZ, and the methods must have been followed correctly;</p> <p>(2) The test must not be older than 2 years;</p> <p>(3) The test must be reviewed and accepted by the Administrator; and</p> <p>(4) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.</p>	40 CFR Section 63.6612(b)
<p>Performance Test: due before end of each 36 months following Initial Performance Test, or every 8760 hours of operation, whichever occurs first, following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620</p>	40 CFR Section 63.6615; 40 CFR Section 63.6620
<p>If complying with the CO reduction requirement using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO concentration requirement using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limit; and</p> <p>ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO reduction requirement without using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The approved operating parameters (if any) were recorded during the initial performance test.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO concentration requirement without using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average CO concentration determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The approved operating parameters (if any) were recorded during the initial performance test.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-38**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Each CPMS must be installed, operated, and maintained according to the following requirements:</p> <p>(1) The Permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) - (v) and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR Section 63.6625(b)(1) - (5) in the site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p> <p>(continued below)</p>	40 CFR Section 63.6625(b)
<p>(continued from above)</p> <p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p> <p>(2) The Permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes.</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(continued below)</p>	40 CFR Section 63.6625(b)
<p>(continued from above)</p> <p>(5) The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b)
<p>If an engine is not equipped with a closed crankcase ventilation system, the Permittee must comply with either (1) or (2). Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g)
<p>Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.</p>	40 CFR Section 63.6625(h)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-39**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>(a) The Permittee must monitor and collect data according to this section.</p> <p>(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(c) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.</p>	40 CFR Section 63.6635
<p>For each engine that is not a limited use RICE and uses an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a)
<p>For each engine that is not a limited use RICE and does not use an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>	40 CFR Section 63.6640(a)
<p>For each limited use engine that uses an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

For each limited use engine that does not use an oxidation catalyst, demonstrate continuous compliance by:	40 CFR Section 63.6640(a)
<p>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>	
The Permittee must report each instance in which the applicable emission limitation or operating limitation was not met. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When reestablishing the values of the operating parameters, a performance test must be conducted to demonstrate that the required applicable emission limitation is being met.	40 CFR Section 63.6640(b)
Submit a Notification of Intent to Conduct a Performance Test at least 60 days before the test is scheduled to begin.	40 CFR Section 63.6645(g); 40 CFR Section 63.7(b)(1)
<p>Submit a Notification of Compliance Status according to 40 CFR Section 63.9(h)(2)(ii).</p> <p>(1) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that does not include a performance test, the Notification of Compliance Status must be submitted before the close of business on the 30th day following the completion of the initial compliance demonstration.</p> <p>(2) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 to Subpart ZZZZ, the Notification of Compliance Status, including the performance test results, must be submitted before the close of business on the 60th day following the completion of the performance test according to 40 CFR Section 63.10(d)(2).</p>	40 CFR Section 63.6645(h); 40 CFR Section 63.6630(c)
The Semiannual Compliance Report described in Table B of this permit may be submitted on the same schedule as the Semiannual Deviations Report, also described in Table B.	40 CFR Section 63.6650(b)(5)
<p>The Compliance report must contain the information in (1) through (6):</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p> <p>(continued below)</p>	40 CFR Section 63.6650(c); 40 CFR Section 63.6650(e)
<p>(continued from above)</p> <p>(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-41**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>For each deviation from an emission or operating limitation occurring for a stationary RICE where a CPMS to comply with the emission and operating limitations in this subpart, include information in 40 CFR Sections (c)(1)-(4) and (e)(1)-(12).</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p> <p>(continued below)</p>	40 CFR Section 63.6650(e)
<p>(continued from above)</p> <p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e)
<p>Report all deviations as defined in Subpart ZZZZ in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.</p>	40 CFR Section 63.6650(f)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-42**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Keep the records of the following:</p> <p>(1) A copy of each notification and report submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.6655(a)
<p>Keep the following records for each CPMS.</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b)
<p>Keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies.</p>	40 CFR Section 63.6655(d)
<p>(a) Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660
<p>The following sections of the General Provisions apply. Submit all applicable notifications, and report all deviations from the requirements of the General Provisions.</p> <p>63.1 - 63.5; 63.6(a); 63.6(b)(1)-(5); 63.6(b)(7); 63.6(c)(1)-(2); 63.6(c)(5); 63.6(f)(2)-(3); 63.6(g)(1)-(3); 63.6(i)-(j); 63.7(a)(1)-(3); 63.7(b)(1)-(2); 63.7(c)-(d); 63.7(e)(2)-(4); 63.7(f)-(h); 63.9(a); 63.9(b)(1)-(5); 63.9(e); 63.9(h)(1)-(6); 63.9(i)-(j); 63.10(a); 63.10(b)(1); 63.10(b)(2)(vi)-(xii); 63.10(b)(2)(xiv); 63.10(b)(3); 63.10(d)(1)-(2); 63.10(d)(4); 63.10(e)(3); 63.10(f); 63.12 - 63.15</p>	40 CFR Section 63.6665; 40 CFR Section 63.6640(e); 40 CFR Section 63.6645(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-43**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 016 Diesel Engines III**Associated Items:** EU 026 Diesel Generator - Bldg 2

EU 027 Diesel Generator - Bldg 7

SV 040 Diesel Generator Exhaust

SV 041 Diesel Generator Exhaust

What to do	Why to do it
The following requirements of this group apply to each item listed under the group.	Minn. R. 7007.0800, subp. 2
LIMITS	hdr
Fuel Type: Diesel fuel only by design.	Minn. R. 7005.0100, subp. 35a
Operating Hours: less than or equal to 600 hours/year using 12-month Rolling Sum to be calculated monthly by the 15th day of the month for the previous 12 months.	Minn. R. 7005.0100, subp. 35a
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (the potential to emit calculations are based on 0.2 lbs/million BTU heat input)	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
MONITORING	hdr
Hours of Operating Monitoring: The Permittee shall maintain and operate an hours meter on the generator and shall record the hours of operation on the first day of each calendar month for the previous calendar month.	Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Monthly Hours of Operation Calculation: By the 15th day of the month, the Permittee shall calculate and record the 12-month Rolling Sum hours of operation for the previous 12-month period by summing the monthly hours data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
NESHAP REQUIREMENTS - Subpart ZZZZ	hdr
The engines must be in compliance with the requirements of Subpart ZZZZ no later than May 3, 2013.	40 CFR Section 63.6595(a)(1)
Carbon Monoxide: less than or equal to 23 parts per million by volume at 15% oxygen, or reduce CO emissions by 70 percent or more.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) by using an oxidation catalyst, the Permittee must: (a) maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst that was measured during the initial performance test; and (b) maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 450 degrees F and less than or equal to 1350 degrees F.	40 CFR Section 63.6603(a)
If the Permittee chooses to comply with the CO requirements (concentration or reduction) without using an oxidation catalyst, the Permittee must comply with any operating limitations approved by the Administrator.	40 CFR Section 63.6603(a)
Diesel fuel must meet the requirements in 40 CFR Section 80.510(b) for non-road diesel fuel.	40 CFR Section 63.6604
The Permittee must be in compliance with the applicable emission limitations and operating limitations of Subpart ZZZZ at all times.	40 CFR Section 63.6605(a)
The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b)
Initial Performance Test: due 180 days after 05/03/2013 following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620	40 CFR Section 63.6612(a); 40 CFR Section 63.6620

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-44**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>An Initial Performance Test is not required for any engine for which a performance test has been previously conducted, provided the test meets all of the following conditions:</p> <p>(1) The test must have been conducted using the same methods specified in Subpart ZZZZ, and the methods must have been followed correctly;</p> <p>(2) The test must not be older than 2 years;</p> <p>(3) The test must be reviewed and accepted by the Administrator; and</p> <p>(4) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.</p>	40 CFR Section 63.6612(b)
<p>Performance Test: due before end of each 36 months following Initial Performance Test, or every 8760 hours of operation, whichever occurs first, following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620</p>	40 CFR Section 63.6615; 40 CFR Section 63.6620
<p>If complying with the CO reduction requirement using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO concentration requirement using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limit; and</p> <p>ii. A CPMS has been installed to continuously monitor the catalyst inlet temperature according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The catalyst pressure drop and catalyst inlet temperature during the initial performance test were recorded.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO reduction requirement without using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average reduction of CO emissions determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The approved operating parameters (if any) were recorded during the initial performance test.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)
<p>If complying with the CO concentration requirement without using an oxidation catalyst, initial compliance has been demonstrated if:</p> <p>i. The average CO concentration determined from the initial performance test meets the required CO reduction; and</p> <p>ii. A CPMS has been installed to continuously monitor the operating parameters approved by the Administrator (if any) according to the requirements of 40 CFR Section 63.6625(b); and</p> <p>iii. The approved operating parameters (if any) were recorded during the initial performance test.</p>	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-45**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Each CPMS must be installed, operated, and maintained according to the following requirements:</p> <p>(1) The Permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) - (v) and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR Section 63.6625(b)(1) - (5) in the site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p> <p>(continued below)</p>	40 CFR Section 63.6625(b)
<p>(continued from above)</p> <p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p> <p>(2) The Permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes.</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(continued below)</p>	40 CFR Section 63.6625(b)
<p>(continued from above)</p> <p>(5) The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b)
<p>If an engine is not equipped with a closed crankcase ventilation system, the Permittee must comply with either (1) or (2). Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g)
<p>Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.</p>	40 CFR Section 63.6625(h)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-46**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>(a) The Permittee must monitor and collect data according to this section.</p> <p>(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(c) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.</p>	40 CFR Section 63.6635
<p>For each engine that is not a limited use RICE and uses an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a)
<p>For each engine that is not a limited use RICE and does not use an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>	40 CFR Section 63.6640(a)
<p>For each limited use engine that uses an oxidation catalyst, demonstrate continuous compliance by:</p> <p>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-47**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

For each limited use engine that does not use an oxidation catalyst, demonstrate continuous compliance by: i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and ii. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.	40 CFR Section 63.6640(a)
The Permittee must report each instance in which the applicable emission limitation or operating limitation was not met. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When reestablishing the values of the operating parameters, a performance test must be conducted to demonstrate that the required applicable emission limitation is being met.	40 CFR Section 63.6640(b)
Submit a Notification of Intent to Conduct a Performance Test at least 60 days before the test is scheduled to begin.	40 CFR Section 63.6645(g); 40 CFR Section 63.7(b)(1)
Submit a Notification of Compliance Status according to 40 CFR Section 63.9(h)(2)(ii). (1) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that does not include a performance test, the Notification of Compliance Status must be submitted before the close of business on the 30th day following the completion of the initial compliance demonstration. (2) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 to Subpart ZZZZ, the Notification of Compliance Status, including the performance test results, must be submitted before the close of business on the 60th day following the completion of the performance test according to 40 CFR Section 63.10(d)(2).	40 CFR Section 63.6645(h); 40 CFR Section 63.6630(c)
The Semiannual Compliance Report described in Table B of this permit may be submitted on the same schedule as the Semiannual Deviations Report, also described in Table B.	40 CFR Section 63.6650(b)(5)
The Compliance report must contain the information in (1) through (6): (1) Company name and address. (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. (3) Date of report and beginning and ending dates of the reporting period. (4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction. (continued below)	40 CFR Section 63.6650(c); 40 CFR Section 63.6650(e)
(continued from above) (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period. (6) If there were no periods during which the CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.	40 CFR Section 63.6650(c)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-48**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>For each deviation from an emission or operating limitation occurring for a stationary RICE where a CPMS to comply with the emission and operating limitations in this subpart, include information in 40 CFR Sections (c)(1)-(4) and (e)(1)-(12).</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p> <p>(continued below)</p>	40 CFR Section 63.6650(e)
<p>(continued from above)</p> <p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e)
<p>Report all deviations as defined in Subpart ZZZZ in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.</p>	40 CFR Section 63.6650(f)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-49**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Keep the records of the following:</p> <p>(1) A copy of each notification and report submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.6655(a)
<p>Keep the following records for each CPMS.</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b)
<p>Keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies.</p>	40 CFR Section 63.6655(d)
<p>(a) Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660
<p>The following sections of the General Provisions apply. Submit all applicable notifications, and report all deviations from the requirements of the General Provisions.</p> <p>63.1 - 63.5; 63.6(a); 63.6(b)(1)-(5); 63.6(b)(7); 63.6(c)(1)-(2); 63.6(c)(5); 63.6(f)(2)-(3); 63.6(g)(1)-(3); 63.6(i)-(j); 63.7(a)(1)-(3); 63.7(b)(1)-(2); 63.7(c)-(d); 63.7(e)(2)-(4); 63.7(f)-(h); 63.9(a); 63.9(b)(1)-(5); 63.9(e); 63.9(h)(1)-(6); 63.9(i)-(j); 63.10(a); 63.10(b)(1); 63.10(b)(2)(vi)-(xii); 63.10(b)(2)(xiv); 63.10(b)(3); 63.10(d)(1)-(2); 63.10(d)(4); 63.10(e)(3); 63.10(f); 63.12 - 63.15</p>	40 CFR Section 63.6665; 40 CFR Section 63.6640(e); 40 CFR Section 63.6645(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-50**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 017 Wood Treatment Usage Limits 1**Associated Items:** CE 011 Activated Carbon Adsorption

EU 035 KD Dip System

EU 037 Departmental Dip Containers

SV 007 Wood Treat System(s) Emissions

SV 008 Wood Treat System(s) Emissions

SV 015 Bypass for KD Dip System

SV 045 General Ventilator assigned to Dept Dip, Hand Priming & Misc VOC, since these don't have specific stacks

What to do	Why to do it
LIMITS	hdr
Usage of wood preservative mixture for EU035 and EU037 shall be less than or equal to 182 tons VOC/year using 365-day Rolling Sum following the calculation procedures specified in Appendix I.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING	hdr
Daily Calculations - Wood Preservative Usage. By the end of each calendar day, the Permittee shall calculate and record the wood preservative usage 365-day Rolling Sum by summing the daily wood preservative usage data for the previous 365 days. The 365-day rolling sum shall be expressed in tons of VOC.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
CONTROL REQUIREMENTS (See also Subject Item CE011)	hdr
The Permittee shall vent the emissions from EU035 to CE011 (activated carbon adsorption) at all times when the emission unit is in operation. See Subject Item CE011 for activated carbon adsorption requirements.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-51**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 019 Wood Treatment VOC and Usage Limits

Associated Items: CE 011 Activated Carbon Adsorption
 EU 036 Dip Dry System
 EU 039 Round Tops Dip System
 SV 007 Wood Treat System(s) Emissions
 SV 008 Wood Treat System(s) Emissions
 SV 012 Bypass for Dip Dry System
 SV 013 Round Tops Bypass
 SV 014 Round Tops Bypass

What to do	Why to do it
EMISSION AND OPERATING LIMITS	dr
Volatile Organic Compounds: less than 19.6 lbs/hour using 3-hour Average . This limit applies to captured and controlled emissions from EU036 and EU039 (combined).	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Usage of wood preservative mixture for EU036 and EU039 (combined) shall be less than or equal to 687 tons VOC/year using 365-day Rolling Sum following the calculation procedures specified in Appendix I.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Work Practice Requirements: The following work practices and standards shall be implemented and/or maintained by the Permittee at EU036 in order to minimize VOC emissions to the atmosphere: 1. Wood to be dipped will be stacked with spacers to facilitate drainage and improve drying to the extent that product damage does not occur. 2. Dipped loads will be tilted for drainage after being dipped. 3. Recirculating fans in the drying ovens will be used to enhance evaporation. 4. The carbon adsorption system will be maintained and utilized at all times while the emission units are operating.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Work Practice Requirements: The following work practices and standards shall be implemented and/or maintained by the Permittee at EU039 in order to minimize VOC emissions to the atmosphere: 1. Air knives will be used on the system to remove excess surface solvent from the individual components. 2. The carbon adsorption system will be maintained and utilized at all times while the emission units are operating.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
MONITORING	hdr
Daily Calculations - Wood Preservative Usage. By the end of each calendar day, the Permittee shall calculate and record the wood preservative usage 365-day Rolling Sum by summing the daily wood preservative usage data for the previous 365 days. The 365-day rolling sum shall be expressed in tons of VOC.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; 40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
CONTROL EQUIPMENT and PERFORMANCE TESTING - see also Subject Item CE011	hdr
Activated carbon adsorption (CE011) shall be operated at all times when EU036 and/or EU039 is in operation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-52**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 021 Wood Milling Equipment 12

Associated Items: CE 059 Centrifugal Collector - Medium Efficiency
 CE 060 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 EU 148 Chop Saw
 EU 374 D/E Tenoner
 EU 375 Moulder
 EU 388 Chop Saw
 EU 480 Saw Chop
 EU 481 Table Saw
 SV 046 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 72,440 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE060. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE060 (or equipment replacing CE060 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP021. Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PERFORMANCE TESTING	hdr
Performance Test: due before end of each year starting 09/27/2007 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2012 to measure Total Particulate Matter emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/30/2012 to measure PM10 emissions	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-53**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 022 Control Equipment: Fabric Filters Subject to CAM and BACT

Associated Items: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 019 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 020 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 060 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 064 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
The following requirements apply to each Associated Item listed above.	hdr
If the Permittee replaces or modifies a fabric filter listed in GP022, such equipment is subject to all of the requirements of GP022 and for replacement fabric filters, the requirements of the replaced fabric filter. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment included in GP022, in compliance with all requirements of GP022, is enforceable for replaced, new and/or modified wood milling equipment and may be considered in calculations done to determine if replacing, modifying, or adding wood milling equipment requires a permit action.	Minn. R. 7007.1200, subps. 2 & 3
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
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: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency greater for Particulate Matter < 10 micron: greater than or equal to 99 percent	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency greater for PM < 2.5 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.05 inches of water column and less than or equal to 10 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: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect each fabric filter stack for any visible emissions during daylight hours (except during inclement weather) OR 2). Read and record the pressure drop across the fabric filter.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Visible Emissions or Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, or whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR Section 64.3; Minn. R. 7017.020

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-54**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

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: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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.	40 CFR Section 64.7(d); Minn. R. 7017.0200
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.	40 CFR Section 64.7(b); Minn. R. 7017.0200
40 CFR Section 64.3; Minn. R. 7017.0200	40 CFR Section 64.3; 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, or the results of compliance or performance testing document a need to modify the existing pressure drop range, 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
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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-55**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 023 Control Equipment: Existing Wall Filters Subject to BACT**Associated Items:** CE 012 Wall Filter (w/CE050)

CE 047 Wall Filter (w/CE055)

CE 048 Wall Filter (w/CE056)

CE 050 Wall Filter (w/CE012)

CE 055 Wall Filter (w/CE047)

CE 056 Wall Filter (w/CE048)

What to do	Why to do it
Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is in operation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
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.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 14
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel 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 or electronic record of filter inspections.	Title I Condition: 40 CFR Section 52.21(j) (BACT); 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 or electronic record of these inspections.	Minn. R. 7007.0800, sub 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 written or electronic record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, sub 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-56**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 024 Wood Milling Equipment 13**Associated Items:** CE 064 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 405 D/E Tenoner

EU 406 Moulder

EU 451 Saw Chop

SV 050 Wood Milling Emissions

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT - see also Subject Item GP022	hdr
Air Flow Rate: less than or equal to 83,040 actual cubic feet/minute (Exhaust Flow Capacity). This fabric filter exhaust flow capacity limit applies to all emission units controlled by CE064. The permittee shall keep the fabric filter design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall vent emissions from all units listed under this Group to control equipment meeting the requirements of GP022 as specified in this permit.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
All wood milling equipment controlled by CE064 (or equipment replacing CE064 as allowed under GP022), including existing, modified, or replacement milling equipment, is subject to the requirements of GP024.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Operation of the control equipment listed in GP022 is enforceable for such equipment and may be considered when determining if the change requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200.	
PERFORMANCE TESTING - see also Subject Item GP020	hdr
Performance Test: due before end of each year starting 10/15/2008 to measure the Air Flow Rate (acfm) at the baghouse to be compared to the permitted Air Flow Rate (acfm) of the baghouse. The facility may use in-house methods to complete this requirement.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 12/31/2011 to measure Total Particulate Matter emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 12/31/2011 to measure PM10 emissions, not to exceed 60 months between test dates.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-57**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 025 Miscellaneous Indirect Heating Units

Associated Items:

- EU 455 Boiler Heat, T&V Center
- EU 456 Boiler Heat, T&V Center
- EU 457 Humidifier, T&V Center
- EU 458 Fireplace, T&V Center
- EU 459 Unit Heater, TG
- EU 460 Unit Heater, TG
- EU 461 Unit Heater, TG
- EU 462 Unit Heater, TG
- EU 463 Unit Heater, TG
- EU 464 Unit Heater, TG
- EU 465 Unit Heater, TG
- EU 466 Unit Heater, TG
- EU 467 Unit Heater, TG
- EU 468 Unit Heater, TG
- EU 469 Unit Heater, TG
- EU 470 Unit Heater, TG
- EU 471 Water Heater, TG
- EU 472 Vaporizer, TG
- EU 473 Unit Heater, Yard Storage
- EU 474 Boiler Heat, COB
- EU 475 Boiler Heat, COB
- EU 476 Boiler Heat, COB Addition
- EU 477 Boiler Heat, COB Addition
- EU 478 Boiler Heat, COB Addition
- SV 059 Boiler Heat, T&V Center
- SV 060 Humidifier, T&V Center
- SV 061 Fireplace, T&V Center
- SV 062 Unit Heater, TG
- SV 063 Unit Heater, TG
- SV 064 Unit Heater, TG
- SV 065 Unit Heater, TG
- SV 066 Unit Heater, TG
- SV 067 Unit Heater, TG
- SV 068 Unit Heater, TG
- SV 069 Unit Heater, TG
- SV 070 Unit Heater, TG
- SV 071 Unit Heater, TG
- SV 072 Unit Heater, TG
- SV 073 Unit Heater, TG
- SV 074 Water Heater, TG
- SV 075 Vaporizer, TG
- SV 076 Unit Heater, Yard Storage
- SV 077 Boiler Heat, COB
- SV 078 Boiler Heat, COB Addition
- SV 079 Boiler Heat, COB Addition

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-58**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Associated Items: SV 080 Boiler Heat, COB Addition

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies individually to each emission unit listed as an Associated Item. The potential to emit from the natural gas fired units is 0.0006 lb/mmbtu heat input due to equipment design and allowable fuels. The potential to emit from the LPG fired units is 0.02 lb/mmbtu heat input 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. This limit applies individually to each emission unit listed as an Associated Item.	Minn. R. 7011.0515, subp. 2
Gas fired boilers and hot water heaters as defined in 40 CFR 63 Subpart JJJJJJ are not subject to the requirements of Subpart JJJJJJ.	40 CFR Section 63.11195

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-59**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 026 Control Equipment: Wall/Panel Filters Subject to CAM

Associated Items: CE 065 Wall Filter (w/CE066)
 CE 066 Wall Filter (w/CE065)
 CE 067 Wall Filter (w/CE068)
 CE 068 Wall Filter (w/CE067)
 CE 069 Wall Filter (w/CE070)
 CE 070 Wall Filter (w/CE069)
 CE 073 Wall Filter (w/CE074)
 CE 074 Wall Filter (w/CE073)
 CE 075 Wall Filter (w/CE076)
 CE 076 Wall Filter (w/CE075)

What to do	Why to do it
The following requirements apply to each Associated Item listed above.	hdr
The Permittee shall operate and maintain each panel filter at all times that the emission unit controlled by that 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 modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain the 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
Pressure Drop: greater than or equal to 0.1 inches of water column and less than or equal to 8.0 inches of water column, unless a new range is required to be set pursuant to Minn. R. 7017.0205, subp. 3.	40 CFR Section 64.3; Minn. R. 7017.0200
Daily Inspections: At least once per 24-hour period, the Permittee shall visually inspect the condition of the panel filter with respect to alignment, saturation, tears, holes and any other matter that may affect the filter's performance. The Permittee shall record the date of each inspection and any actions resulting from the inspection.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop Recordkeeping. At least once per 24-hour period, the Permittee shall read and record the pressure drop across the panel filter. The Permittee shall record the date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered excursions as defined in 40 CFR Section 64.1.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: The Permittee shall inspect the control equipment components as required by the manufacturing specifications. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the panel filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range 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 panel filter. The Permittee shall keep a record of the type and date of any corrective action taken for the panel filter.	40 CFR Section 64.7(d); Minn. R. 7017.0200
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, including maintaining necessary parts for routine repairs of the monitoring equipment, when the monitored filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
The Permittee shall calibrate each pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration.	40 CFR Section 64.3; 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, or the results of compliance or performance testing document a need to modify the existing pressure drop range, 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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-60**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

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
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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-61**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 027 Control Equipment: Wall/Panel Filters Not Subject to CAM**Associated Items:** CE 057 Wall Filter (w/CE058)

CE 058 Wall Filter (w/CE057)

CE 071 Wall Filter (w/CE072)

CE 072 Wall Filter (w/CE071)

CE 077 Wall Filter (w/CE078)

CE 078 Wall Filter (w/CE077)

What to do	Why to do it
The following requirements apply to each Associated Item listed above.	hdr
The Permittee shall operate and maintain the panel filter at all times that unit controlled by the panel 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 modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain the 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
Pressure Drop: greater than or equal to 0.1 inches of water column and less than or equal to 8.0 inches of water column, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3.	Minn. R. 7007.0800, subps. 2 and 14
Pressure Drop Recordkeeping. Once each operating day, the Permittee shall read and record the pressure drop across the panel filter. The Permittee shall record the date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered excursions as defined in 40 CFR Section 64.1.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel 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 a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 and 5
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
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, subps. 4, 5, and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

Subject Item: GP 028 Storage Tanks
Associated Items: TK 001 Preservative Concentrate
TK 002 Mineral Spirits

What to do	Why to do it
The Permittee shall equip each storage vessel with a permanent submerged fill pipe.	Minn. R. 7011.1505, subp. 3

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-63**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: GP 029 Wood Fuel Storage Piles**Associated Items:** FS 001 Wood Fuel Storage Pile - Field

FS 005 Wood Fuel Storage Pile - Boiler Complex

What to do	Why to do it
<p>No person shall 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.</p> <p>No person shall cause or permit a building or its appurtenances or a road, or a driveway, or an open area to be constructed, used, repaired, or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne. All persons shall take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. The commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne including, but not limited to, paving or frequent clearing of roads, driveways, and parking lots; application of dust-free surfaces; application of water; and the planting and maintenance of vegetative ground cover.</p>	Minn. R. 7011.0150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-64**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 010 Magna Spray Booth**Associated Items:** CE 012 Wall Filter (w/CE050)

CE 050 Wall Filter (w/CE012)

SV 018 Paint Emissions

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Volatile Organic Compounds: less than or equal to 30 tons/year using 365-day Rolling Sum (usage).	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 35.4 lbs/hour using 3-hour Average (usage).	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.18 lbs/hour using 3-hour Average (emissions)	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.18 lbs/hour using 3-hour Average (emissions)	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
BACT Work Practice Requirements: The following work practices and standards shall be implemented and/or maintained by the Permittee in order to minimize VOC emissions to the atmosphere: 1. A high-solids coating shall be utilized (less than or equal to 7.4 lb VOC/lb solids, as applied) 2. Standardized spray tips, application patterns, and fluid and air pressures will be maintained for proper spraying operations. 3. Ongoing training of and feedback from employees will be maintained regarding paint usage rate to ensure proper mil thickness and transfer efficiencies. 4. Ongoing efforts will be made to implement VOC reducing product substitutions.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping and Calculations: On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all VOC used at EU010. This shall be based on usage logs.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied at EU 010: 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The solids content, as lb solids/gal of coating, as applied.	Minn. R. 7007.0800, subp. 4 and 5
Material Content: VOC, HAPs, and Solids (PM and PM<10 microns) contents in materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5
Daily VOC Calculations: By the end of each calendar day, the Permittee shall calculate and record the following: 1. The total usage of VOC containing materials for EU010, in tons, for the previous calendar day using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit. 2. The 365-day Rolling Sum VOC usage, in tons, for the previous 365-day period by summing the daily VOC usage data for the previous 365 days.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 09/30/2010, to measure PM emissions.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-65**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Performance Test: due before end of each 60 months starting 09/30/2010, to measure PM10 emissions.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
CONTROL REQUIREMENTS (See also Subject Item GP023)	hdr
Permittee shall operate and maintain the panel filters (CE012 and CE050) any time that EU010 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Permittee shall maintain total enclosure and operate and maintain the control equipment so that it achieves an overall control efficiency PM < 10 micron: greater than or equal to 97.75 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 97.75 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU385. These assumptions are listed in Appendix IV 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-66**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 012 Boiler 3**Associated Items:** CE 014 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

SV 025 Boiler 3 Exhaust

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input .	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
Allowed Fuels: The Permittee shall burn only wood, as defined in Minn. R. 7011.1201, subp. 48, in this boiler.	Minn. R. 7007.0800, subp. 2
By the 15th of each month, the Permittee shall record and maintain the quantity of fuel used at EU012 for the previous month calculated from boiler water use. Permittee shall only burn wood and woodwaste.	Minn. R. 7007.0800, subp. 4 and 5
CONTROL REQUIREMENTS	hdr
The Permittee shall operate and maintain the cyclone (CE014) at any time that the EU012 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 4.1 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain CE014 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
Visible Emissions: The Permittee shall check SV025 for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions. 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, subp. 2 and 14
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
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of the control equipment and associated connections with respect to any condition that may affect the control equipments performance. The Permittee shall maintain a daily written or electronic record of inspections.	Minn. R. 7007.0800, subp. 4 and 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the cyclone or any of its components are found during the inspections to need repair. - visible emissions are detected Corrective actions shall return the operation to within the permitted range, 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 cyclone. The Permittee shall keep a written or electronic record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 and 14
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 09/30/2009 to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
NESHAP REQUIREMENTS	hdr
The Permittee shall conduct a tune-up of the boiler biennially. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. The date by which the Permittee must be in compliance with this requirement is March 21, 2012.	40 CFR Section 63.11201; 40 CFR Section 63.11196(a)(1); 40 CFR Section 63.11223(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-67**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>The biennial tune-up must be conducted as follows:</p> <p>(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. (Burner inspection may be delayed until the next scheduled unit shutdown, but each burner must be inspected at least once every 36 months.)</p> <p>(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.</p> <p>(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.</p> <p>(4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.</p> <p>(continued below)</p>	40 CFR Section 63.11223(b)
<p>(continued from above)</p> <p>(5) Measure the concentrations in the effluent stream of carbon monoxide in ppmv, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).</p> <p>(6) Maintain onsite and submit, if requested, biennial report containing the following information:</p> <p>(i) The concentration of CO in the effluent stream in ppmv, and oxygen in volume percent, measured before and after the boiler tune-up.</p> <p>(ii) A description of any corrective actions taken as part of the boiler tune-up.</p> <p>(iii) The type and amount of fuel used over the 12 months prior to the boiler tune-up.</p> <p>(7) If the unit is not operating on the required date of the tune-up, the tune-up must be conducted within one week of startup.</p>	40 CFR Section 63.11223(b)
<p>The Permittee must conduct the performance tune-up according to the requirements of 40 CFR Section 63.11223(b) and must submit a signed statement in the Notification of Compliance Status report that indicates that the boiler tune-up was conducted.</p>	40 CFR Section 63.11214(a)
<p>The Permittee must have a one-time energy assessment performance by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements below satisfies the energy assessment requirement. The energy assessment must be completed by March 21, 2014, and must include:</p> <p>(1) A visual inspection of the boiler system,</p> <p>(2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,</p> <p>(3) Inventory of major systems consuming energy from the affected boiler(s),</p> <p>(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,</p> <p>(continued below)</p>	40 CFR Section 63.11201; 40 CFR Section 63.11196(a)(3)
<p>(continued from above)</p> <p>(5) A list of major energy conservation measures,</p> <p>(6) A list of the energy savings potential of the energy conservation measures identified, and</p> <p>(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</p>	40 CFR Section 63.11201

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-68**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.	40 CFR Section 63.11214(b)
At all times, the Permittee must operate and maintain the boiler, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.11205(a)
The Permittee shall submit the Notification of Compliance Status in accordance with 40 CFR Section 63.9(h) no later than 120 days after the applicable compliance date specified in 40 CFR Section 63.11196. In addition to the information required in 40 CFR Section 63.9(h)(2), the notification must include the following certifications of compliance, as applicable, and be signed by a responsible official: (i) "This facility complies with the requirements in 40 CFR Section 63.11214 to conduct an initial tune-up of the boiler." (ii) "This facility has had an energy assessment performed according to 40 CFR 63.11214(c)."	40 CFR Section 63.11225(a)(4)
The Permittee must by prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information listed below. You must submit the report by March 15 if any instance described by item (3) occurred. For boilers subject only to a requirement to conduct a biennial tune-up according to 40 CFR Section 63.11223(a) and not subject to emission limits or operating limits from Subpart JJJJJJ, the Permittee may prepare only a biennial compliance report, instead of a semi-annual compliance report. (continued below)	40 CFR Section 63.11225(b)
(continued from above) (1) Company name and address. (2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of Subpart JJJJJJ. (3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.	40 CFR Section 63.11225(b)
The Permittee must maintain the following records: (1) As required by 40 CFR Section 63.10(b)(2)(xiv), keep a copy of each notification and report submitted to comply with Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted. (2) Keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR Section 63.11214, as follows: (i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. (continued below)	40 CFR Section 63.11225(c)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-69**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>(continued from above)</p> <p>(ii) Records documenting the fuel types used monthly by each boiler including but not limited to a description of the fuel, including whether the fuel has received a non-waste determination, and the total fuel usage amount with units of measure. If combusting non-hazardous secondary materials determined not to be solid waste pursuant to 40 CFR Section 241.3(b)(1), keep a record which documents how the secondary material meets each of the legitimacy criteria. If combusting a fuel processed from a discarded non-hazardous secondary material pursuant to 40 CFR Section 241.3(b)(4), keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR Section 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR Section 241.3(c), keep a record that documents how the fuel satisfies the requirements of the petition process.</p> <p>(continued below)</p>	40 CFR Section 63.11225(c)
<p>(continued from above)</p> <p>(3) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.</p> <p>(4) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR Section 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.</p> <p>(5) Records of all inspection and monitoring data required by 40 CFR Sections 63.11221 and 63.11222, and the information identified below for each required inspection or monitoring.</p> <p>(continued below)</p>	40 CFR Section 63.11225(c)
<p>(continued from above)</p> <p>(i) The date, place, and time of the monitoring event.</p> <p>(ii) Person conducting the monitoring.</p> <p>(iii) Technique or method used.</p> <p>(iv) Operating conditions during the activity.</p> <p>(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.</p> <p>(vi) Maintenance or corrective action taken (if applicable).</p>	40 CFR Section 63.11225(c)
<p>Records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), each record must be kept for 5 years following the date of each recorded action. Keep each record onsite for at least 2 years after the date of each recorded action according to 40 CFR Section 63.10(b)(1). Records may be kept off site for the remaining 3 years.</p>	40 CFR Section 63.11225(d)
<p>If the Permittee intends to switch fuels, and this fuel switch may result in the applicability of a different subcategory or a switch out of subpart JJJJJJ due to a switch to 100 percent natural gas, provide 30 days prior notice of the date upon which the fuel switch will occur. The notification must identify:</p> <p>(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice.</p> <p>(2) The currently applicable subcategory under this subpart.</p> <p>(3) The date on which the boiler became subject to the currently applicable standards.</p> <p>(4) The date upon which the fuel switch will commence.</p>	40 CFR Section 63.11225(g)
<p>The following sections of the General Provisions apply:</p> <p>63.1; 63.2; 63.3; 63.4; 63.6(a), (b)(1)-(5), (b)(7), (c), (f)(2)-(3), (g), (i), & (j); 63.9; 63.10(a), (b)(1), (b)(2)(iii), (d)(1)-(2), (d)(4), & (f); 63.12; 63.13; 63.14; 63.15; 63.16.</p>	40 CFR Section 63.11235

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-70**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 013 Boiler 4**Associated Items:** CE 015 Flue Gas Recirculation

SV 026 Boiler 4 Exhaust

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input (potential to emit calculations are based on 0.00724 lbs/million BTU heat input).	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 or propane only, by design.	Minn. R. 7007.0800, subp. 2
By the 15th day of each month, the Permittee shall record the quantity of fuel used at EU013 for the previous calendar month.	Minn. R. 7007.0800, subp. 4 and 5
Gas fired boilers and hot water heaters as defined in 40 CFR 63 Subpart JJJJJJ are not subject to the requirements of Subpart JJJJJJ.	40 CFR Section 63.11195

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-71** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 023 Diesel Generator - COB Bldg**Associated Items:** SV 037 Diesel Generator Exhaust

What to do	Why to do it
LIMITS	hdr
Fuel Type: Diesel fuel only by design.	Minn. R. 7005.0100, subp. 35a
Operating Hours: less than or equal to 600 hours/year using 12-month Rolling Sum to be calculated monthly by the 15th day of the month for the previous 12 months.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (the potential to emit calculations are based on 0.2 lbs/million BTU heat input)	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
MONITORING	hdr
Hours of Operating Monitoring: The Permittee shall maintain and operate an hours meter on the generator and shall record the hours of operation on the first day of each calendar month for the previous calendar month.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Monthly Hours of Operation Calculation: By the 15th day of the month, the Permittee shall calculate and record the 12-month Rolling Sum hours of operation for the previous 12-month period by summing the monthly hours data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
NESHAP REQUIREMENTS - Subpart ZZZZ	hdr
The engines must be in compliance with the requirements of Subpart ZZZZ no later than May 3, 2013.	40 CFR Section 63.6595(a)(1)
Carbon Monoxide: less than or equal to 49 parts per million by volume at 15% oxygen, or reduce CO emissions by 70 percent or more.	40 CFR Section 63.6603(a)
Diesel fuel must meet the requirements in 40 CFR Section 80.510(b) for non-road diesel fuel.	40 CFR Section 63.6604
The Permittee must be in compliance with the applicable emission limitations and operating limitations of Subpart ZZZZ at all times.	40 CFR Section 63.6605(a)
The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b)
Initial Performance Test: due 180 days after 05/03/2013 following the procedures in Subpart ZZZZ Table 4 and 40 CFR Section 63.6620	40 CFR Section 63.6612(a); 40 CFR Section 63.6620
An Initial Performance Test is not required for any engine for which a performance test has been previously conducted, provided the test meets all of the following conditions: (1) The test must have been conducted using the same methods specified in Subpart ZZZZ, and the methods must have been followed correctly; (2) The test must not be older than 2 years; (3) The test must be reviewed and accepted by the Administrator; and (4) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.	40 CFR Section 63.6612(b)
Initial Compliance has been demonstrated if the average reduction of emissions of CO, determined from the initial performance test, is greater than the required CO percent reduction, or the average CO concentration, corrected to 15% oxygen, from the three test runs is less than or equal to the CO emission limit.	40 CFR Section 63.6612(a); 40 CFR Section 63.6630(a) and (b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-72**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>If an engine is not equipped with a closed crankcase ventilation system, the Permittee must comply with either (1) or (2). Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g)
<p>Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.</p>	40 CFR Section 63.6625(h)
<p>(a) The Permittee must monitor and collect data according to this section.</p> <p>(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(c) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.</p>	40 CFR Section 63.6635
<p>The Permittee must report each instance in which the applicable emission limitation or operating limitation was not met. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When reestablishing the values of the operating parameters, a performance test must be conducted to demonstrate that the required applicable emission limitation is being met.</p>	40 CFR Section 63.6640(b)
<p>Submit a Notification of Intent to Conduct a Performance Test at least 60 days before the test is scheduled to begin.</p>	40 CFR Section 63.6645(g); 40 CFR Section 63.7(b)(1)
<p>Submit a Notification of Compliance Status according to 40 CFR Section 63.9(h)(2)(ii).</p> <p>(1) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that does not include a performance test, the Notification of Compliance Status must be submitted before the close of business on the 30th day following the completion of the initial compliance demonstration.</p> <p>(2) For each initial compliance demonstration required in Table 5 to Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 to Subpart ZZZZ, the Notification of Compliance Status, including the performance test results, must be submitted before the close of business on the 60th day following the completion of the performance test according to 40 CFR Section 63.10(d)(2).</p>	40 CFR Section 63.6645(h); 40 CFR Section 63.6630(c)
<p>The Semiannual Compliance Report described in Table B of this permit may be submitted on the same schedule as the Semiannual Deviations Report, also described in Table B.</p>	40 CFR Section 63.6650(b)(5)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-73**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>The Compliance report must contain the information in (1) through (6):</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p> <p>(continued below)</p>	40 CFR Section 63.6650(c)
<p>(continued from above)</p> <p>(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c)
<p>Report all deviations as defined in Subpart ZZZZ in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.</p>	40 CFR Section 63.6650(f)
<p>Keep the records of the following:</p> <p>(1) A copy of each notification and report submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.6655(a)
<p>(a) Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

<p>The following sections of the General Provisions apply. Submit all applicable notifications, and report all deviations from the requirements of the General Provisions.</p> <p>63.1 - 63.5; 63.6(a); 63.6(b)(1)-(5); 63.6(b)(7); 63.6(c)(1)-(2); 63.6(c)(5); 63.6(f)(2)-(3); 63.6(g)(1)-(3); 63.6(i)-(j); 63.7(a)(1)-(3); 63.7(b)(1)-(2); 63.7(c)-(d); 63.7(e)(2)-(4); 63.7(f)-(h); 63.9(a); 63.9(b)(1)-(5); 63.9(e); 63.9(h)(1)-(6); 63.9(i)-(j); 63.10(a); 63.10(b)(1); 63.10(b)(2)(vi)-(xii); 63.10(b)(2)(xiv); 63.10(b)(3); 63.10(d)(1)-(2); 63.10(d)(4); 63.10(e)(3); 63.10(f); 63.12 - 63.15</p>	<p>40 CFR Section 63.6665; 40 CFR Section 63.6640(e); 40 CFR Section 63.6645(a)</p>
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-75**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 031 Fire Pump Engine**Associated Items:** SV 042 Fire Pump Engine Exhaust

What to do	Why to do it
The following requirements of this group apply to each item listed under the group.	Minn. R. 7007.0800, subp. 2
LIMITS	hdr
Fuel Type: Diesel fuel only by design.	Minn. R. 7005.0100, subp. 35a
Operating Hours: less than or equal to 600 hours/year using 12-month Rolling Sum to be calculated monthly by the 15th day of the month for the previous 12 months.	Minn. R. 7005.0100, subp. 35a
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (the potential to emit calculations are based on 0.2 lbs/million BTU heat input)	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
MONITORING	hdr
Hours of Operating Monitoring: The Permittee shall maintain and operate an hours meter on the generator and shall record the hours of operation on the first day of each calendar month for the previous calendar month.	Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Monthly Hours of Operation Calculation: By the 15th day of the month, the Permittee shall calculate and record the 12-month Rolling Sum hours of operation for the previous 12-month period by summing the monthly hours data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
NESHAP REQUIREMENTS - Subpart ZZZZ	hdr
The engines must be in compliance with the requirements of Subpart ZZZZ no later than May 3, 2013.	40 CFR Section 63.6595(a)(1)
The following requirements must be met except during periods of startup: a. Change oil and filter every 500 hours of operation or annually, whichever comes first. (May utilize an oil analysis program as described in 40 CFR Section 63.6625(i) in order to extend the oil change requirement.) b. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first. c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary	40 CFR Section 63.6603(a)
If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of Subpart ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.	40 CFR Section 63.6603(a)
The Permittee must be in compliance with the applicable emission limitations and operating limitations of Subpart ZZZZ at all times.	40 CFR Section 63.6605(a)
The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b)
Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions	40 CFR Section 63.6605(e)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-76**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Install a non-resettable hour meter if one is not already installed	40 CFR Section 63.6605(f)
Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	40 CFR Section 63.6625(h)
<p>The Permittee must demonstrate continuous compliance with Subpart ZZZZ by</p> <p>i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions,</p> <p>OR</p> <p>ii. Develop and follow a maintenance plan which must provide, to the extent possible, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>	40 CFR Section 63.6640(a)
The Permittee must report each instance in which the applicable emission limitation or operating limitation was not met. These instances are deviations from the emission and operating limitations in Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When reestablishing the values of the operating parameters, a performance test must be conducted to demonstrate that the required applicable emission limitation is being met.	40 CFR Section 63.6640(b)
<p>Operate the emergency engine according to (i)-(iii). Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If the engine is not operated according (i)-(iii), the engine will not be considered an emergency engine under Subpart ZZZZ and will need to meet all requirements for non-emergency engines.</p> <p>(i) There is no time limit on the use of emergency stationary RICE in emergency situations.</p> <p>(ii) The emergency engine may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance and testing beyond 100 hours per year.</p>	40 CFR Section 63.6640(f)
<p>(iii) The emergency engine may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the engine may be operated for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level.</p> <p>(continued below)</p>	40 CFR Section 63.6640(f)
<p>(iii continued from above)</p> <p>The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this requirement, as long as the power provided by the financial arrangement is limited to emergency power.</p>	40 CFR Section 63.6640(f)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-77**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Report all deviations as defined in Subpart ZZZZ in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f)
Keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies.	40 CFR Section 63.6655(d)
Keep records of the maintenance performed on the engine in order to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the maintenance plan.	40 CFR Section 63.6655(e)
Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.	40 CFR Section 63.6655(f)
<p>(a) Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660
<p>The following sections of the General Provisions apply. Report all deviations from the requirements of the General Provisions.</p> <p>63.1 - 63.5; 63.6(a); 63.6(b)(1)-(5); 63.6(b)(7); 63.6(c)(1)-(2); 63.6(c)(5); 63.6(f)(2)-(3); 63.6(g)(1)-(3); 63.6(i)-(j); 63.7(a)(3); 63.7(e)(4); 63.7(f); 63.9(a); 63.9(i)-(j); 63.10(a); 63.10(b)(1); 63.10(b)(2)(vi)-(xii); 63.10(b)(2)(xiv); 63.10(b)(3); 63.10(d)(1); 63.10(d)(4); 63.10(f); 63.12 - 63.15</p>	40 CFR Section 63.6665; 40 CFR Section 63.6640(e)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-78**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 038 Hand Priming**Associated Items:** SV 045 General Ventilator assigned to Dept Dip, Hand Priming & Misc VOC, since these don't have specific stacks

What to do	Why to do it
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU038. These assumptions are listed in Appendix IV 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-79**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 040 Wood Bead Primer#1**Associated Items:** SV 019 Paint Emissions

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 38 tons/year using 365-day Rolling Sum (usage).	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
BACT Work Practice Requirements: The Permittee shall use water-based coatings to minimize VOC emissions rates. Water-based coating is defined as those coatings having Volatile Organic Compounds: less than or equal to 0.746 lbs/gallon	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU040. These assumptions are listed in Appendix IV 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
MONITORING	hdr
Daily Recordkeeping and Calculations. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all VOC used at EU040. This shall be based on usage logs.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
RECORDKEEPING	hdr
Daily VOC Usage Calculations: By the end of each calendar day, the Permittee shall calculate and record the following: 1.) The total usage of VOC containing materials for EU040, in tons, for the previous calendar day using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit. 2.) The 365-day rolling sum VOC usage, in tons, for the previous 365-day period by summing the daily VOC usage data for the previous 365-days.	Title I Condition: 40 CFR Section 52.21(j) (BACT) and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied at EU040: 1.) The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2.) The solids content, as lb solids/gal of coating, as applied.	Minn. R. 7007.0800, subp. 4 and 5
Material Content: VOC, HAPs, and Solids (PM and PM10) contents in materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM10. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-80**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 045 P2 Prime Line 2**Associated Items:** CE 047 Wall Filter (w/CE055)

CE 055 Wall Filter (w/CE047)

SV 020 Paint Emissions

What to do	Why to do it
EMISSION LIMITS	hdr
PM < 10 micron: less than or equal to 1.91 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. Solids contents for each material shall be determined as described under the Material Content requirement. The calculation of solids used may take into account recovered/recycled solids as described under the Waste Credit requirement.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU045. These assumptions are listed in Appendix IV 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
RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coatings and other solids containing materials used at this emissions unit. This shall be based on written or electronic usage logs, flowmeters and/or delivery records.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Monthly Recordkeeping - PM10 Emissions. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each solids containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit. 2) The PM10 emissions for the previous month using the formulas specified in this permit. 3) The 12 month rolling sum PM10 emissions for the previous 12 month period by summing the monthly PM10 emissions data for the previous 12 months.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Monthly Calculation -- PM10 Emissions. The Permittee shall calculate PM10 emissions from the spray booths using the following equations: $PM10 \text{ (tons/month)} = S(1-CE)(1-TE) - W$ $S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$	Minn. R. 7007.0800, subp. 4 and 5
Monthly PM10 Emissions Calculation Continued: Where: S = total solids used in tons/month; CE = overall control efficiency, as a fraction. This shall be 0.95 for all spray booths; TE = transfer efficiency, as a fraction. This shall be 0.90, unless otherwise approved by the MPCA in writing. A# = amount of each solids containing material sprayed, in tons/month; B# = weight percent solids in A#, as a fraction; W = the amount of solids shipped in waste, in tons/month; C# = amount, in tons/month, of each solids containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of solids in C#, as a fraction.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-81**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Material Content: Solids (PM and PM10) contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM10. Other alternative methods approved by the MPCA may be used to determine the solids contents. The Commissioner reserves the right to require the Permittee to determine the solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of solids, excluding water. 2) The Permittee may use supplier data for raw materials to determine the solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest solids content of any of the materials.	Minn. R. 7007.0800, subp. 4 and 5
CONTROL REQUIREMENTS (See also Subject Item GP023)	hdr
Permittee shall operate and maintain the panel filters (CE047 and CE055) any time that EU045 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall maintain total enclosure and operate and maintain the control equipment so that it achieves an overall control efficiency PM < 10 micron: greater than or equal to 95 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-82**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 047 3 Stage Fan Coater**Associated Items:** SV 022 Paint Emissions

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU047. These assumptions are listed in Appendix IV 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
RECORDKEEPING	hdr
Coating Content Records: The Permittee shall record and maintain the following for each coating applied at EU047: 1. The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2. The solids content, as lb solids/gal of coating, as applied.	Minn. R. 7007.0800, subp. 4 and 5
Material Content: VOC, HAPs, and Solids (PM and PM < 10 microns) contents in materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-83**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 049 Overhead Hand Spray Line**Associated Items:** CE 048 Wall Filter (w/CE056)

CE 056 Wall Filter (w/CE048)

SV 023 Paint Emissions

What to do	Why to do it
EMISSION LIMITS	hdr
PM < 10 micron: less than or equal to 2.72 tons/year using 12-month Rolling Sum	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU049. These assumptions are listed in Appendix IV 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
RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coatings and other solids containing materials used at this emissions unit. This shall be based on written or electronic usage logs, flowmeters and/or delivery records.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Monthly Recordkeeping - PM10 Emissions. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each solids containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit. 2) The PM10 emissions for the previous month using the formulas specified in this permit. 3) The 12 month rolling sum PM10 emissions for the previous 12 month period by summing the monthly PM10 emissions data for the previous 12 months.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Monthly Calculation -- PM10 Emissions. The Permittee shall calculate PM10 emissions from the spray booths using the following equations: $\text{PM10 (tons/month)} = S(1-CE)(1-TE) - W$ $S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$	Minn. R. 7007.0800, subp. 4 and 5
Monthly PM10 Emissions Calculation Continued: Where: S = total solids used in tons/month; CE = overall control efficiency, as a fraction. This shall be 0.95 for all spray booths; TE = transfer efficiency, as a fraction. This shall be 0.15, unless otherwise approved by the MPCA in writing. A# = amount of each solids containing material sprayed, in tons/month; B# = weight percent solids in A#, as a fraction; W = the amount of solids shipped in waste, in tons/month; C# = amount, in tons/month, of each solids containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of solids in C#, as a fraction.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-84**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Material Content: Solids (PM and PM10) contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM10. Other alternative methods approved by the MPCA may be used to determine the solids contents. The Commissioner reserves the right to require the Permittee to determine the solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of solids, excluding water. 2) The Permittee may use supplier data for raw materials to determine the solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest solids content of any of the materials.	Minn. R. 7007.0800, subp. 4 and 5
CONTROL REQUIREMENTS (See also Subject Item GP023)	hdr
Permittee shall operate and maintain the panel filters (CE048 and CE056) any time that EU049 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Permittee shall maintain total enclosure and operate and maintain the control equipment so that it achieves an overall control efficiency Particulate Matter < 10 micron: greater than or equal to 95 percent control efficiency	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-85**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 321 P2 Prime Line 3**Associated Items:** CE 057 Wall Filter (w/CE058)

CE 058 Wall Filter (w/CE057)

SV 043 Paint Emissions

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU321. These assumptions are listed in Appendix IV 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
CONTROL EQUIPMENT REQUIREMENTS (See also Subject Item GP027)	hdr
Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is in operation.	Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.0715, subp. 1(A)
Permittee shall maintain total enclosure and operate and maintain the control equipment so that it achieves an overall control efficiency Total Particulate Matter: greater than or equal to 92 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.0715, subp. 1(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

Subject Item: **EU 350 Wood Bead Primer 2**

Associated Items: SV 022 Paint Emissions

What to do	Why to do it
Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU350. These assumptions are listed in Appendix IV 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-87**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 382 Internally Vented & Controlled Systems**Associated Items:** CE 063 Other

SV 048 Internally Vented & Controlled Systems

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.002 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
Operation of CE063 in compliance with all requirements listed under EU382, is enforceable for replaced, new, and/or modified internally venting wood milling equipment and may be considered in calculations done to determine of replacing, modifying, or adding internally venting wood milling equipment requires a permit action, using the applicable calculation methods of Minn. R. 7007.1200. Such wood milling equipment is then subject to the requirements listed under EU382.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Air Flow Rate: less than or equal to 250,000 actual cubic feet/minute (Exhaust Flow Capacity). The CE063 system (includes fabric and cartridge filters) exhaust flow capacity limit applies to all emission units controlled by this control device. The Permittee shall keep the fabric filter system design specifications showing the calculated maximum airflow on-site.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall maintain written or electronic records of blower capacity.	Minn. R. 7007.0800, subp. 5
The Permittee shall operate and maintain components of the CE063 filter system at all times that any emission unit controlled by the component is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain CE063 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
The Permittee shall operate and maintain CE063 such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 92 percent	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain CE063 such that it achieves an overall control efficiency greater for PM < 10 micron: greater than or equal to 92 percent	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
If the Permittee replaces or modifies a component of CE063, such equipment is subject to all the requirements listed under EU382. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Recordkeeping of Equipment Changes: The Permittee shall keep and maintain a list of the fabric filter system (includes fabric and cartridge filters) and the airflows for each piece of the fabric filter system. The record shall show that the total fabric filter system airflow is less than the limit. This list shall be updated each time a change is made. The record shall include the date the change was made, the change to EU 382, a brief description of the equipment, and the airflow for each piece of equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

<p>Fabric Filter System (includes fabric and cartridge filters) Department Procedure: The Permittee shall retain at the Facility and shall implement a Department Procedure (DP) for all air pollution control equipment described. At a minimum, the DP shall require the use of such controls at all times that internally vented wood milling equipment is in operation, shall include 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 the DP, and the written or electronic records kept to demonstrate DP implementation. The DP may be incorporated into the Facility's O&M Plan.</p> <p>Corrective actions may include the repair or replacement of the control device with a similar device.</p>	<p>Minn. R. 7007.0800, subp. 2 and 14</p>
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-89**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 385 Wood Treatment Pilot Plant Prototype**Associated Items:** SV 049 Wood Treatment Test Unit/Pilot Plant Prototype

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 36.0 tons/year using 365-day Rolling Sum (usage).	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
MONITORING	hdr
Daily Recordkeeping and Calculations. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all VOC used at EU385. This shall be based on usage logs.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Daily VOC Usage Calculations: By the end of each calendar day, the Permittee shall calculate and record the following: 1.) The total usage of VOC containing materials for EU385, in tons, for the previous calendar day 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. 2.) The 365-day rolling sum VOC usage, in tons, for the previous 365-day period by summing the daily VOC usage data for the previous 365-days.	Minn. R. 7007.0800, subp. 4 and 5
Material Content: VOC contents in materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-90**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 446 IF Auto Lineal Line #1**Associated Items:** CE 065 Wall Filter (w/CE066)

CE 066 Wall Filter (w/CE065)

SV 053 IF Auto Lineal Line #1

What to do	Why to do it
LIMITS	hdr
<p>Volatile Organic Compounds: less than or equal to 22.0 tons/year using 12-month Rolling Sum (usage) to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement.</p>	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 2.1 tons/year using 12-month Rolling Sum (emissions) (PM, PM10 and PM2.5 are assumed to be equivalent).	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
Daily Recordkeeping and Calculations: On each day of operation, the Permittee shall calculate, record, and maintain records of the total quantity of all coatings and other VOC and HAPs used and the total quantity of all solids containing materials used. This shall be based on usage logs.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
<p>Coating Content Records: The Permittee shall record and maintain the following for each coating applied:</p> <ol style="list-style-type: none"> 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency 	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <ol style="list-style-type: none"> 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water. 2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials. 	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC, HAPs, and Solids (PM, PM<10 microns, and PM<2.5 microns) contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-91

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions:</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3 + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly VOC Emissions Calculation Continued:</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - Total Particulate Matter Emission. By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The Total Particulate Matter emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum Total Particulate Matter emissions for the previous 12-month period by summing the monthly Total Particulate Matter emissions data for the previous 12 months.</p>	<p>Title I Condition: To avoid classification as a major amendment under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- Total Particulate Matter Emissions.</p> <p>The Permittee shall calculate Total Particulate Matter emissions from the spray booths using the following equations:</p> <p>Total Particulate Matter (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Total Particulate Matter Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction.</p> <p>TE = transfer efficiency, as a fraction.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU446. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL REQUIREMENTS (See also Subject Item GP026)</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-92**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain the panel filters (CE065 and CE066) at all times that EU446 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-93**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 448 IF Hand Spray Booth #1**Associated Items:** CE 067 Wall Filter (w/CE068)

CE 068 Wall Filter (w/CE067)

SV 055 IF Hand Spray Booth #1

What to do	Why to do it
LIMITS	hdr
<p>Volatile Organic Compounds: less than or equal to 5.5 tons/year using 12-month Rolling Sum (usage) to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement.</p>	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 2.2 tons/year using 12-month Rolling Sum (emissions) (PM, PM10 and PM2.5 are assumed to be equivalent).	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
Daily Recordkeeping and Calculations: On each day of operation, the Permittee shall calculate, record, and maintain records of the total quantity of all coatings and other VOC and HAPs used and the total quantity of all solids containing materials used. This shall be based on usage logs.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
<p>Coating Content Records: The Permittee shall record and maintain the following for each coating applied:</p> <ol style="list-style-type: none"> 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency 	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <ol style="list-style-type: none"> 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water. 2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials. 	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC, HAPs, and Solids (PM, PM<10 microns, and PM<2.5 microns) contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-94

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions:</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. 	<p>Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3 + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly VOC Emissions Calculation Continued:</p> <p>where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - Total Particulate Matter Emission. By the 15th of the month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit; 2) The Total Particulate Matter emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum Total Particulate Matter emissions for the previous 12-month period by summing the monthly Total Particulate Matter emissions data for the previous 12 months. 	<p>Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4</p>
<p>Monthly Calculation -- Total Particulate Matter Emissions.</p> <p>The Permittee shall calculate Total Particulate Matter emissions from the spray booths using the following equations:</p> <p>Total Particulate Matter (tons/month) = $S(1-CE)(1-TE) - W$ $S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Total Particulate Matter Emissions Calculation Continued:</p> <p>Where: S = total solids used in tons/month; CE = overall control efficiency, as a fraction. TE = transfer efficiency, as a fraction. A# = amount of each solids-containing material sprayed, in tons/month; B# = weight percent solids in A#, as a fraction; W = the amount of solids shipped in waste, in tons/month; C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU448. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL REQUIREMENTS (See also Subject Item GP026)</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-95**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain the panel filters (CE067 and CE068) at all times that EU448 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-96**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 449 IF Hand Spray Booth #2**Associated Items:** CE 069 Wall Filter (w/CE070)

CE 070 Wall Filter (w/CE069)

SV 056 IF Hand Spray Booth #2

What to do	Why to do it
LIMITS	hdr
<p>Volatile Organic Compounds: less than or equal to 5.5 tons/year using 12-month Rolling Sum (usage) to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement.</p>	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 2.2 tons/year using 12-month Rolling Sum (emissions) (PM, PM10 and PM2.5 are assumed to be equivalent).	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
Daily Recordkeeping and Calculations: On each day of operation, the Permittee shall calculate, record, and maintain records of the total quantity of all coatings and other VOC and HAPs used and the total quantity of all solids containing materials used. This shall be based on usage logs.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
<p>Coating Content Records: The Permittee shall record and maintain the following for each coating applied:</p> <ol style="list-style-type: none"> 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency 	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <ol style="list-style-type: none"> 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water. 2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials. 	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC, HAPs, and Solids (PM, PM<10 microns, and PM<2.5 microns) contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-97

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions:</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3 + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly VOC Emissions Calculation Continued:</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - Total Particulate Matter Emission. By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The Total Particulate Matter emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum Total Particulate Matter emissions for the previous 12-month period by summing the monthly Total Particulate Matter emissions data for the previous 12 months.</p>	<p>Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4</p>
<p>Monthly Calculation -- Total Particulate Matter Emissions.</p> <p>The Permittee shall calculate Total Particulate Matter emissions from the spray booths using the following equations:</p> <p>Total Particulate Matter (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Total Particulate Matter Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction.</p> <p>TE = transfer efficiency, as a fraction.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the potential to emit of EU449. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL REQUIREMENTS (See also Subject Item GP026)</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-98**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain the panel filters (CE069 and CE070) at all times that EU449 is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 92 percent	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-99**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 488 CSI Auto Lineal Line #1, Booth #1**Associated Items:** CE 071 Wall Filter (w/CE072)

CE 072 Wall Filter (w/CE071)

SV 081 CSI Auto Lineal Line #1, Booth #1

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 6.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.25 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 0.25 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 2.5 micron: less than or equal to 0.25 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
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 EU488. This shall be based on usage logs.	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied: 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC and/or solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC and/or solids content of any of the materials.	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns or less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-100

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions.</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - PM/PM10/PM2.5 Emissions: By the 15th day of each month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The PM emissions for the previous month using the formulas specified in this permit (PM10 and PM2.5 may be assumed equivalent to PM); and</p> <p>3) The 12-month rolling sum PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly PM emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- PM Emissions.</p> <p>The Permittee shall calculate PM emissions from the spray booths using the following equations:</p> <p>PM (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly PM Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction;</p> <p>TE = transfer efficiency, as a fraction. This shall be 0.80, unless otherwise approved by the MPCA in writing.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP026. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL EQUIPMENT REQUIREMENTS (See also Subject Item GP027)</p>	<p>hdr</p>
<p>The Permittee shall operate and maintain the panel filters at all times that EU488 is in operation. The Permittee shall document periods of non-operation of the control equipment.</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>The Permittee shall operate and maintain control equipment (CE071/CE072 in series) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 92 percent control efficiency</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-101**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain control equipment (CE071/CE072 in series) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE071/CE072 in series) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-102**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 489 CSI Auto Lineal Line #1, Booth #2**Associated Items:** CE 073 Wall Filter (w/CE074)

CE 074 Wall Filter (w/CE073)

SV 082 CSI Auto Lineal Line #1, Booth #2

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 8.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 2.5 micron: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
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 EU489. This shall be based on usage logs.	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied: 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC and/or solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC and/or solids content of any of the materials.	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns or less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-103

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions.</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - PM/PM10/PM2.5 Emissions: By the 15th day of each month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The PM emissions for the previous month using the formulas specified in this permit (PM10 and PM2.5 may be assumed equivalent to PM); and</p> <p>3) The 12-month rolling sum PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly PM emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- PM Emissions.</p> <p>The Permittee shall calculate PM emissions from the spray booths using the following equations:</p> <p>PM (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly PM Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction;</p> <p>TE = transfer efficiency, as a fraction. This shall be 0.80, unless otherwise approved by the MPCA in writing.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP026. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL EQUIPMENT REQUIREMENTS (See also Subject Item GP026)</p>	<p>hdr</p>
<p>The Permittee shall operate and maintain the panel filters at all times that EU489 is in operation. The Permittee shall document periods of non-operation of the control equipment.</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>The Permittee shall operate and maintain control equipment (CE073/CE074 in series) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 92 percent control efficiency</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-104**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain control equipment (CE073/CE074 in series) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE073/CE074 in series) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-105**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 491 CSI Auto Lineal Line #1, Booth #3**Associated Items:** CE 075 Wall Filter (w/CE076)

CE 076 Wall Filter (w/CE075)

SV 084 CSI Auto Lineal Line #1, Booth #3

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 8.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 2.5 micron: less than or equal to 1.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
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 EU491. This shall be based on usage logs.	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied: 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC and/or solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC and/or solids content of any of the materials.	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns or less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-106

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions.</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - PM/PM10/PM2.5 Emissions: By the 15th day of each month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The PM emissions for the previous month using the formulas specified in this permit (PM10 and PM2.5 may be assumed equivalent to PM); and</p> <p>3) The 12-month rolling sum PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly PM emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- PM Emissions.</p> <p>The Permittee shall calculate PM emissions from the spray booths using the following equations:</p> <p>PM (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly PM Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction;</p> <p>TE = transfer efficiency, as a fraction. This shall be 0.80, unless otherwise approved by the MPCA in writing.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP026. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL EQUIPMENT REQUIREMENTS (See also Subject Item GP026)</p>	<p>hdr</p>
<p>The Permittee shall operate and maintain the panel filters at all times that EU491 is in operation. The Permittee shall document periods of non-operation of the control equipment.</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>The Permittee shall operate and maintain control equipment (CE075/CE076 in series) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 92 percent control efficiency</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-107**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

The Permittee shall operate and maintain control equipment (CE075/CE076 in series) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE075/CE076 in series) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-108**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: EU 493 CSI Hand Spray Booth #1 Bldg 7**Associated Items:** CE 077 Wall Filter (w/CE078)

CE 078 Wall Filter (w/CE077)

SV 086 CSI Hand Spray Booth #1

What to do	Why to do it
LIMITS	hdr
Volatile Organic Compounds: less than or equal to 6.0 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 3.1 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 3.1 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 2.5 micron: less than or equal to 3.1 tons/year using 365-day Rolling Sum	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
RECORDKEEPING	hdr
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 EU493. This shall be based on usage logs.	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Coating Content Records: The Permittee shall record and maintain the following for each coating applied: 1). The VOC content, as lb VOC/gal of coating and lb VOC/lb solids, as applied. 2). The HAP content, as lb HAP/gal of coating and lb HAP/lb solids, as applied. 3). The solids content, as lb solids/gal of coating, as applied. 4). The Maximum Coating Application Rate 5). The Transfer efficiency	Minn. R. 7007.0800, subp. 4 and 5
Waste Credit: If the Permittee elects to obtain credit for solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC and/or solids content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC and/or solids content of any of the materials.	Minn. R. 7007.0800, subps. 4 and 5
Material Content. VOC and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns or less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-109

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

<p>Monthly Recordkeeping -- VOC Emissions.</p> <p>By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of VOC-containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit; and</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> <p>VOC (tons/month) = V - W</p> <p>$V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$</p> <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>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</p> <p>D# = weight percent of VOC in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Recordkeeping - PM/PM10/PM2.5 Emissions: By the 15th day of each month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each solids-containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit;</p> <p>2) The PM emissions for the previous month using the formulas specified in this permit (PM10 and PM2.5 may be assumed equivalent to PM); and</p> <p>3) The 12-month rolling sum PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly PM emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly Calculation -- PM Emissions.</p> <p>The Permittee shall calculate PM emissions from the spray booths using the following equations:</p> <p>PM (tons/month) = $S(1-CE)(1-TE) - W$</p> <p>$S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$</p> <p>$W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Monthly PM Emissions Calculation Continued:</p> <p>Where:</p> <p>S = total solids used in tons/month;</p> <p>CE = overall control efficiency, as a fraction;</p> <p>TE = transfer efficiency, as a fraction. This shall be 0.15, unless otherwise approved by the MPCA in writing.</p> <p>A# = amount of each solids-containing material sprayed, in tons/month;</p> <p>B# = weight percent solids in A#, as a fraction;</p> <p>W = the amount of solids shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each solids-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and</p> <p>D# = weight percent of solids in C#, as a fraction.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP026. These assumptions are listed in Appendix IV 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.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>
<p>CONTROL EQUIPMENT REQUIREMENTS (See also Subject Item GP027)</p>	<p>hdr</p>
<p>The Permittee shall operate and maintain the panel filters at all times that EU493 is in operation. The Permittee shall document periods of non-operation of the control equipment.</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>The Permittee shall operate and maintain control equipment (CE077/CE078 in series) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 92 percent control efficiency</p>	<p>[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

The Permittee shall operate and maintain control equipment (CE077/CE078 in series) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE077/CE078 in series) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 92 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-111

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: CE 011 Activated Carbon Adsorption**Associated Items:** EU 035 KD Dip System

EU 036 Dip Dry System

EU 039 Round Tops Dip System

GP 017 Wood Treatment Usage Limits 1

GP 019 Wood Treatment VOC and Usage Limits

What to do	Why to do it
OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE011 at all times that any emission unit controlled by CE011 (EU035, EU036, EU039) is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain CE011 such that it achieves an overall control efficiency for Volatile Organic Compounds: greater than or equal to 95 percent	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain CE011 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
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 09/30/2007 to measure VOC emissions compared to the VOC emission limit listed at GP019.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
OPTION 1 - LIMITS AND MONITORING USING THE ADSORPTION-CYCLE AVERAGE	hdr
Temperature: less than or equal to 180 degrees F (average inlet temperature to carbon vessel A during the adsorption cycle), unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Any adsorption-cycle average temperature exceeding this limit shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F (average inlet temperature to carbon vessel B during the adsorption cycle), unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Any adsorption-cycle average temperature exceeding this limit shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F (average inlet temperature to carbon vessel C during the adsorption cycle), unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Any adsorption-cycle average temperature exceeding this limit shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F (average inlet temperature to carbon vessel D during the adsorption cycle), unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Any adsorption-cycle average temperature exceeding this limit shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-112** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Temperature Monitoring: The Permittee shall maintain and operate a temperature sensing device that continuously indicates and records the inlet temperature to each of the carbon vessels (A-D) during the adsorption cycle. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the adsorption-cycle average inlet temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated adsorption-cycle average inlet temperatures.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14; 40 CFR Section 64.9(b); Minn. R. 7017.0200
OPTION 2 - LIMITS AND MONITORING NOT USING THE ADSORPTION-CYCLE AVERAGE	hdr
Temperature: less than or equal to 180 degrees F inlet temperature (any single reading) to carbon vessel A during the adsorption cycle, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Each temperature reading above the maximum shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F inlet temperature (any single reading) to carbon vessel B during the adsorption cycle, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Each temperature reading above the maximum shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F inlet temperature (any single reading) to carbon vessel C during the adsorption cycle, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Each temperature reading above the maximum shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature: less than or equal to 180 degrees F inlet temperature (any single reading) to carbon vessel D during the adsorption cycle, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. Each temperature reading above the maximum shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Temperature Monitoring: The Permittee shall maintain and operate a temperature sensing device that continuously indicates and records the inlet temperature to each of the carbon vessels (A-D) during the adsorption cycle. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14; 40 CFR Section 64.9(b); Minn. R. 7017.0200
MONITORING AND RECORDKEEPING APPLICABLE TO OPTIONS 1 AND 2	hdr
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR Section 64.3(b); Minn. R. 7017.0200
Monitoring Equipment: The Permittee shall install and maintain temperature sensing devices to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required.	40 CFR Section 64.7(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-113**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration.	40 CFR Section 64.3; Minn. R. 7017.0200
Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment external system components. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	40 CFR Section 64.3; Minn. R. 7017.0200
Annual Inspection: At least once per calendar year, the Permittee shall conduct an inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: If the temperature is above the maximum specified by this permit or if the control device or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted maximum 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 CE011. The Permittee shall keep a record of the type and date of any corrective action taken.	40 CFR Section 64.7(d); 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, or the results of compliance or performance testing document a need to modify the existing minimum combustion chamber temperature(s), the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring changes.	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
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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-114**

11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

Subject Item: FS 006 Truck Traffic - Unpaved Roads**Associated Items:** CE 022 Dust Suppression

What to do	Why to do it
<p>No person shall 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.</p> <p>No person shall cause or permit a building or its appurtenances or a road, or a driveway, or an open area to be constructed, used, repaired, or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne. All persons shall take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. The commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne including, but not limited to, paving or frequent clearing of roads, driveways, and parking lots; application of dust-free surfaces; application of water; and the planting and maintenance of vegetative ground cover.</p>	Minn. R. 7011.0150
Maintain a written or electronic record of dust suppression applications.	Minn. R. 7007.0800, subp. 5

TABLE B: SUBMITTALS

B-1 11/13/12

Facility Name: Marvin Windows & Doors
Permit Number: 13500002 - 005

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

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

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.

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

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

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

Send any application for a permit or permit amendment to:

Fiscal Services
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

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**B-2** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12-month, 36-month, or 60-month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP001, GP002, GP006, GP011
Testing Frequency Plan	due 60 days after Initial Performance Test for Total Particulate Matter emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12-month, 36-month, or 60-month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP001, GP002, GP006, GP011

TABLE B: RECURRENT SUBMITTALS**B-3** 11/13/12

Facility Name: Marvin Windows & Doors

Permit Number: 13500002 - 005

What to send	When to send	Portion of Facility Affected
Semiannual Compliance Report	<p>due 31 days after end of each calendar half-year starting 05/03/2013. The report must contain the following information:</p> <p>a. If there are no deviations from applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations. If there were no periods during which the CPMS was out of control, a statement that there were no periods during which the CPMS was out of control; or</p> <p>b. If there was a deviation from an applicable emission or operating limitation during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CPMS was out of control, the information in 40 CFR 63.6650(e); or</p> <p>c. If there was a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4).</p>	EU023, GP014, GP015, GP016
Semiannual Deviations Report	<p>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.</p>	Total Facility
Annual Report	<p>due 30 days after end of each calendar year following Permit Issuance. The Permittee shall submit an annual report by January 31st, using the latest MPCA application forms, that describes the milling equipment changes made at the facility during the previous calendar year which did not require a permit action. 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 be submitted with the annual Compliance Certification listed in Table B.</p>	Total Facility
Compliance Certification	<p>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.</p>	Total Facility

APPENDIX I

Wood Treatment VOC Usage

Facility Name:

Marvin Windows & Doors

Permit Number:

13500002-005

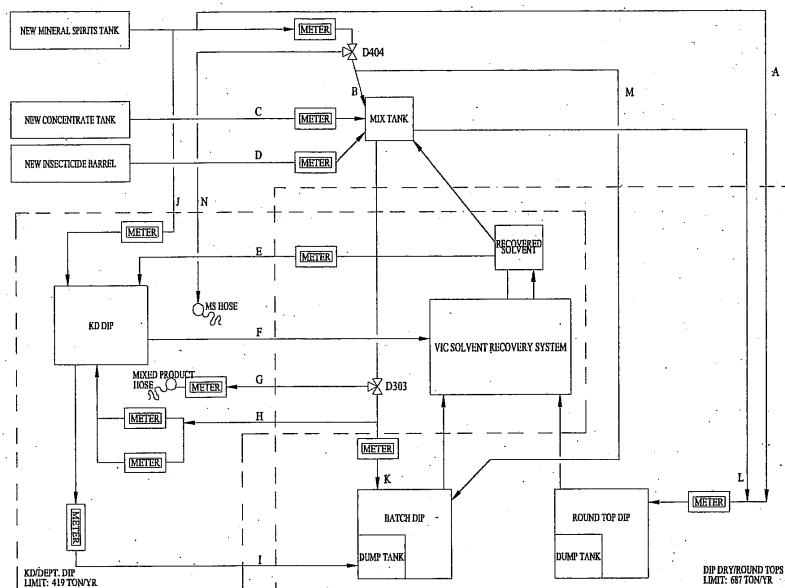
NOTE Correction: KD/Department Dip Dry VOC Usage Limit = 182 tons/year
Dip Dry/Round Tops VOC Usage Limit = 687 tons/year

Marvin Windows and Doors, Warroad, M

Wood Treatment VOC Usage Calculation Proposal

May 21, 2002

The following diagram shows the possible paths that product may flow throughout the systems. Letters A through E and G through N represent gallons of liquid. Letter F represents vapor flow from KD Dip system to the solvent recovery system. The dashed boxes distinguish the two "VOC usage systems".



Our objective is to determine the VOC usage for each of the two systems (Dip Dry/Round Tops and KD/Departmental Dip). We can calculate these values by adding the product going into each system and subtracting the product going out. Data would be converted from gallons to VOC's (pounds/tons) based on the appropriate VOC contents.

If we consider the recovered solvent to be in both boxes, the usage for each system would be calculated by multiplying the ratio of gallons of mixed product used in each system to the total mixed product used in both systems by the total new product to the mix tank. Additional new product would also be added (J, A, M, and N) as indicated in the following VOC usage formulas:

KD/Department Dip (VOC Usage Limit = 419 tons/year):

$$\text{USAGE} = ((G+H+I)/(G+H+K+L) * (B+C+D)) + J + N$$

Dip Dry/Round Tops (VOC Usage Limit = 687 tons/year):

$$\text{USAGE} = ((K+L+I)/(G+H+K+L) * (B+C+D)) + A + M$$

This option calculates the usage of mixed product for a system based on a ratio of gallons used in that system to total gallons used in both systems. The recovered mineral spirits are not included in the usage calculations; rather the mineral spirits VOC's are only counted when new mineral spirits are added to the system.

WT_VOC Calcs_ToPCA_020521

Page 1

NOTE Correction: KD/Department Dip Dry VOC Usage Limit = 182 tons/year
Dip Dry/Round Tops VOC Usage Limit = 687 tons/year

APPENDIX II **Insignificant Activities**
Facility Name: Marvin Windows & Doors
Permit Number: 13500002-005

Insignificant Activities and General Applicable Requirements

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

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(B)	Furnaces, boilers, and incinerators: 1. infrared electric ovens; <ul style="list-style-type: none"> Marvin Windows has an IR cure oven. 	Minn. R. 7011.0110 (Opacity)
3(G)	Emissions from a laboratory, as defined in the subpart. <ul style="list-style-type: none"> Marvin Windows has an “incoming quality control lab” 	Minn. R. 7011.0715 (PM and Opacity)
3(H)	Miscellaneous: 3. brazing, soldering or welding equipment; <ul style="list-style-type: none"> Marvin Windows has welding operations that satisfy this description. 4. blueprint copiers and photographic processes; <ul style="list-style-type: none"> Marvin Windows has photocopy equipment. 	Minn. R. 7011.0715 Minn. R. 7011.0110 (Opacity)
3(I)	Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than: 1. 4,000 lbs/year of carbon monoxide; 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone; and 3. 1,000 tons/year of CO ₂ e <ul style="list-style-type: none"> Marvin Windows has the following particulate/VOC sources that qualify under this part: <ul style="list-style-type: none"> flax shive building sawdust storage bin carbon regen cooling tower remediation bioreactor (0.13 tpy VOC) bulk mineral spirits storage RT dump tank mix tank 	Minn. R. 7011.0715 (PM and Opacity)

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
	<ul style="list-style-type: none"> ○ drip dry dump tank ○ recovered mineral spirits 	
3(J)	<p>Fugitive Emissions from roads and parking lots.</p> <ul style="list-style-type: none"> • Marvin Windows has unpaved parking lots. 	Minn. R. 7011.0150
3(K)	<p>Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.</p> <ul style="list-style-type: none"> • Marvin Windows uses spray paint for general maintenance and upkeep purposes. 	Minn. R. 7011.0715 (PM and Opacity)
4	<p>Individual emissions units at a stationary source, each of which has:</p> <p>A. Potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of carbon monoxide;</p> <p>B. Potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for particulate matter, particulate matter less than ten microns, nitrogen oxide, sulfur dioxide, and VOCs;</p> <p>C. For hazardous air pollutants, emissions units with:</p> <p>(1) potential emissions of 25 percent or less of the hazardous air pollutant thresholds listed in subp. 5; or</p> <p>(2) combined HAP actual emissions of one ton per year unless the emissions unit emits one or more of the HAPs listed in this subpart; AND</p> <p>D. Potential emissions up to 10,000 tons per year or actual emissions up to 1,000 tons per year of CO₂e.</p> <ul style="list-style-type: none"> • Marvin Windows has the following units that qualify under this part: <ul style="list-style-type: none"> ○ printing operations ○ bulk preservative concentrate storage. 	Minn. R. 7011.0715 (PM and Opacity)

APPENDIX III **Modeled Stack Parameters**
Facility Name: Marvin Windows & Doors
Permit Number: 13500002-005

Modeled Parameters for PM sources (1993)

Current Stack/Vent Identification	Marvin Source Designation	Particulate Emission Rate (lb/hr)	Stack Height (ft)	Gas Exit Temp. (°F)	Flow Rate (acfm)	Stack Diameter (ft)
SV002	SH-002	1.57540	31.0	70.3	91,800	6.53
SV003	SH-004	1.31271	29.5	70.3	76,440	5.64
SV004	SH-006	0.78929	31.0	70.3	46,020	5.51
SV001	SH-050	1.05000	33.0	70.3	61,200	5.51
SV005	SH-009	1.97858	60.0	70.3	115,620	7.15
SV006	SH-010	0.98834	40.0	70.3	57,780	5.87
SV009	SH-049	1.97858	40.0	70.3	115,620	7.15
SV011	SH-052	1.97858	30.0	70.3	115,620	7.15
SV018	SB-010	0.09008	35.0	80.3	14,280	3.51
	SB-012	0.09008	35.0	80.3	14,280	3.51
SV025	BS-003	6.30560	45.0	300.3	9,120	2.17
SV026	BS-004	0.16016	45.0	500.3	14,040	2.76
SV027/028	BS-005	8.70800	60.0	300.3	25,980	4.50
SV029	GN-003	0.27024	31.0	915.3	2,640	0.98
SV030	GN-004	0.27024	31.0	915.3	2,640	0.98
SV031	GN-005	0.27024	35.0	915.3	2,640	0.98
SV032	GN-006	0.13008	40.0	915.3	1,320	0.49
SV033	GN-007	0.13008	40.0	915.3	1,320	0.49
SV034	GN-008	0.74048	40.0	885.3	1,680	0.59
SV035	GN-009	0.74048	40.0	885.3	1,680	0.59
SV036	GN-010	0.74048	40.0	885.3	1,680	0.59
SV037	GN-011	0.44040	34.0	895.3	1,020	0.49
Insignificant	VN-319	0.10111	43.5	70.3	0	2.60

Note: Modeling included additional units that no longer exist. Additional sources have been added to the facility since the 1993 modeling was completed; these sources were unrelated to the PSD project for which the 1993 modeling was completed.

APPENDIX IV Material Contents
Facility Name: Marvin Windows & Doors
Permit Number: 13500002-005

Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit. These assumptions are:

Unit	Max VOC	Max HAP	Max Solids	Max coating rate	Minimum Transfer efficiency
EU010	3.77 lb/gal	0	6.6 lb/gal	1.72 gal/hour	30%
EU038	0.18 lb/gal	0	NA*	15,200 gal/year	100%
EU040	0.18 lb/gal	0	NA*	12 gal/hour	100%
EU045	0.18 lb/gal	0	6.6 lb/gal	13.2 gal/hour	90%
EU047	0.66 lb/gal	0	NA	4.22 gal/hour	100%
EU049	0.18 lb/gal	0	6.6 lb/gal	2.2 gal/hour	15%
EU321	0.18 lb/gal	0	6.6 lb/gal	13.2 gal/hour	80%
EU350	0.18 lb/gal	0	NA	24 gal/hour	100%
EU446	1.1 lb/gal	0	6.6 lb/gal	9.62 gal/hour	80%
EU448	1.1 lb/gal	0	6.6 lb/gal	2.4 gal/hour	15%
EU449	1.1 lb/gal	0	6.6 lb/gal	2.4 gal/hour	15%
EU488	0.4 lb/gal	0	1.0 lb/gal	22.5 gal/hour	80%
EU489	0.4 lb/gal	0	3.0 lb/gal	52.5 gal/hour	80%
EU491	0.4 lb/gal	0	3.0 lb/gal	52.5 gal/hour	80%
EU493	0.4 lb/gal	0	3.0 lb/gal	6.6 gal/hour	15%

* These coatings do contain solids, however the solids content is irrelevant because the coating application method is hand painting or flow coating.