



Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

1/26/2011

Mr. Tim More  
MASCO Cabinetry, Middlefield LLC (Plant 3)  
15535 South State Street  
P.O. Box 1055  
Middlefield, OH 44062

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0204000360  
Permit Number: P0106466  
Permit Type: Administrative Modification  
County: Ashtabula

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Star Beacon. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA-NEDO; Pennsylvania; Canada





## Permit Strategy Write-Up

1. Check all that apply:

X

Synthetic Minor Determination

Netting Determination

2. Source Description:

MASCO Cabinetry Plant 3 operates under SIC code 2434 and manufactures wooden cabinets. The facility is located at 150 Grand Valley Avenue, Orwell, Ashtabula County, Ohio. The facility is classified as a synthetic minor facility to avoid Title V permitting requirements for PM-10.

3. Facility Emissions and Attainment Status:

Orwell in Ashtabula County is classified as attainment for PM-2.5 and PM-10. This FEPTIO (P0106466) is an administrative modification for emissions units F001, F002, P001, P002, P003, P004, P005, P006, P007, P008 and P009. The permit restricts PM-10 emissions as a surrogate for PM-2.5 emissions.

4. Source Emissions:

The facility operates as a synthetic minor for PM-10. The synthetic minor strategy consists of allowable emissions of 0.0025 grain PM-10/dscf exhaust air from each of the fabric filters. This allows the potential PM-10 from Plant 3 to be less than 100 TPY.

This permit will renew and administratively modify existing synthetic minor permits-to-install #02-20472 and 02-21103 and federally-enforceable-permit-to-install-and-operate P0104093 for emissions units F001, F002, P001, P002, P003, P004, P005, P006, P007, P008 and P009. This permit will modify the emissions testing requirements. The permit will also increase the allowable PM-10 emissions from emissions unit F002 by 0.42 ton per year. The allowable emissions from the other units will remain unchanged.

5. Conclusion:

After this permit is issued, the potential emissions for PM-10 at Plant 3 will increase by 0.42 tpy to 41.62 tpy. The potential particulate emissions will increase by 0.85 tpy to 79.78 tpy. The facility classification of FEPTIO will not change. The facility will continue to operate as a minor facility for purposes of Title V permitting.

6. Please provide additional notes or comments as necessary:

None



7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
<u>PE</u>	<u>79.78</u>
<u>PM-10</u>	<u>41.62</u>

PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install and Operate  
MASCO Cabinetry, Middlefield LLC (Plant 3)

Issue Date: 1/26/2011

Permit Number: P0106466

Permit Type: Administrative Modification

Permit Description: Administrative Modification to change testing requirements and to allow for de minimis increase in sawdust handling.

Facility ID: 0204000360

Facility Location: MASCO Cabinetry, Middlefield LLC (Plant 3)  
150 GRAND VALLEY AVE.,  
ORWELL, OH 44076

Facility Description: Wood Kitchen Cabinet and Countertop Manufacturing

Scott J. Nally, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Bridget Byrne at Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087 or (330)425-9171. The permit can be downloaded from the Web page: [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc)



**Ohio**

**Environmental  
Protection Agency**

**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
MASCO Cabinetry, Middlefield LLC (Plant 3)**

Facility ID:	0204000360
Permit Number:	P0106466
Permit Type:	Administrative Modification
Issued:	1/26/2011
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





Division of Air Pollution Control
Permit-to-Install and Operate
for
MASCO Cabinetry, Middlefield LLC (Plant 3)

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## Authorization

Facility ID: 0204000360  
Application Number(s): A0039739, A0040625, A0040928  
Permit Number: P0106466  
Permit Description: Administrative Modification to change testing requirements and to allow for de minimis increase in sawdust handling.  
Permit Type: Administrative Modification  
Permit Fee: \$1,150.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 1/26/2011  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

MASCO Cabinetry, Middlefield LLC (Plant 3)  
150 GRAND VALLEY AVE.  
ORWELL, OH 44076

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally  
Director



Authorization (continued)

Permit Number: P0106466
Permit Description: Administrative Modification to change testing requirements and to allow for de minimis increase in sawdust handling.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

- Emissions Unit ID: F001
Company Equipment ID: Grinder & Cyclone P4-83
Superseded Permit Number: 02-20472
General Permit Category and Type: Not Applicable
Emissions Unit ID: F002
Company Equipment ID: Storage Silo and Truck Loading
Superseded Permit Number: P0104093
General Permit Category and Type: Not Applicable
Emissions Unit ID: P001
Company Equipment ID: P3-20865
Superseded Permit Number: 02-20472
General Permit Category and Type: Not Applicable
Emissions Unit ID: P002
Company Equipment ID: P3-20866
Superseded Permit Number: P0104093
General Permit Category and Type: Not Applicable
Emissions Unit ID: P003
Company Equipment ID: P3-12742
Superseded Permit Number: P0104093
General Permit Category and Type: Not Applicable
Emissions Unit ID: P004
Company Equipment ID: P3-12743
Superseded Permit Number: P0104093
General Permit Category and Type: Not Applicable

Group Name: P005, P006 and P007

Table with 2 columns: Emissions Unit ID and details. Rows include P005, P006, and P007 with their respective equipment IDs, superseded permit numbers, and general permit categories.

**Draft Permit-to-Install and Operate**  
MASCO Cabinetry, Middlefield LLC (Plant 3)

**Permit Number:** P0106466

**Facility ID:** 0204000360

**Effective Date:** To be entered upon final issuance

**Group Name:** P008 and P009

<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	P008
Superseded Permit Number:	P0105952
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	P009
Superseded Permit Number:	P0105952
General Permit Category and Type:	Not Applicable

## **A. Standard Terms and Conditions**

**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above. The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2). The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northeast District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed

permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred. If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31. You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official. You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated. Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or

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<sup>1</sup> Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

## **B. Facility-Wide Terms and Conditions**

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.

## **C. Emissions Unit Terms and Conditions**

**1. F001, Grinder & Cyclone P4-83**

**Operations, Property and/or Equipment Description:**

Grinder with 4968 cfm air return cyclone MASCO ID P4-83

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Fugitive emissions of particulate matter less than or equal to 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 1.53 tons per year from the grinder.  Fugitive particulate emissions (PE) shall not exceed 1.53 tons per year from the grinder.  Visible emissions of fugitive dust from the grinder shall not exceed 20% opacity as a 3-minute average.
b.	OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)	The requirements established pursuant to OAC rules 3745-17-08(B) and 3745-17-07(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The dust collector exhaust does not vent into the atmosphere. Rather, the exhaust air from the dust collector is recirculated into the grinder and becomes process air in the grinder. The grinder has an opening through which excess air escapes.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the grinder. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for the grinder if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the grinder and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) in the annual PER and shall cover the previous 12-month period.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible emissions of fugitive dust from the grinder shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

Fugitive emissions of PM<sub>10</sub> shall not exceed 1.53 tons per year from the grinder.

Fugitive PE shall not exceed 1.53 tons per year from the grinder.

Applicable Compliance Method:

Compliance is based upon the following calculation:

$$E = SU \times EF \times (1-CE)$$

where:

E = annual emissions, in tons;

SU = amount of sawdust unloaded per year, in tons;

EF = emission factor of 0.35 lb/ton from RACM Table 2.17, Fugitive dust Emission Factors for Woodworking Operations; and

CE = control efficiency estimated to be 80% for the cyclone.

g) Miscellaneous Requirements

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>F001- GRINDER 2/1/2010</b> PLANT 3 DUST COLLECTORS.XLS GRINDER			
<b>Dust Collection Sizes and Reading</b>			
<b>For:</b>	GRINDER		
<b>EPA ID#</b>	F001		
<b>KMC Asset #</b>	P3-Grinder		
Date: 02/09	KraftMaid Design Velocity =	5850	
Equipment:	Running Total for 5850 V		
HF13 25 HP 22 BHP 2369 RPM Fan Inlet 13"	5350 MAX CFM @ 5850 FPM		
5340 Max CFM @ 5850 fpm OV 11" SP	<b>4595</b>		
Size of pipe in inches	Amount of CFM in pipe		
1	GRINDER	12	4595



2. F002, Dust Silo and Truck Loading

Operations, Property and/or Equipment Description:

Sawdust storage silo with new 6000 cfm baghouse P3-XXXXX
Truck loading with 3-sided enclosure, telescoping chute and 21,200 cfm baghouse P1-13323

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row 1: a. OAC rule 3745-31-05(D)(1)(b) | Emissions of particulate matter less than or equal to 10 microns in diameter (PM10) shall not exceed 0.0025 grain per dscf of exhaust gases from each baghouse stack. Emissions of PM10 from loading into the storage silo (6000 cfm baghouse) shall not exceed 0.13 lb/hr and 0.56 tpy from the baghouse stack. Emissions of PM10 from loading into trucks from the storage silo (21,200 cfm baghouse) shall not exceed 0.45 lb/hr and 1.99 tpy from the baghouse stack. Visible particulate emissions (PE) from the each baghouse stack shall not exceed 0% opacity as a 6-minute



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)	<p>average.</p> <p>PE shall not exceed 0.005 grain per dscf of exhaust gases from each baghouse stack.</p> <p>PE from loading into the storage silo (6000 cfm baghouse) shall not exceed 0.26 lb/hr and 1.13 tpy from the baghouse stack.</p> <p>PE from loading into trucks (21,200 cfm baghouse) shall not exceed 0.91 lb/hr and 3.98 tpy.</p> <p>Fugitive PE and PM<sub>10</sub> emissions from loading into trucks from the storage silo shall not exceed 0.68 tpy.</p> <p>Visible emissions of fugitive dust from loading into trucks from the storage silo shall not exceed 10% opacity as a 3-minute average.</p>
c.	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A) OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)	The requirements established pursuant to OAC rules 3745-17-11(B), 3745-17-07(A), 3745-17-08(B) and 3745-17-07(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(D)(1)(b) and OAC rule 3745-31-05(A).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;



- b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee shall also perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from loading into trucks. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
- (3) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:
- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
  - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from either baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible emissions of dust or fugitive dust were observed from the truck loading area and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitations:

Visible particulate emissions from each baghouse shall not exceed 0% opacity as a 6-minute average.

Visible emissions of fugitive dust from loading sawdust into trucks from the storage silo shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, OAC rule 3745-17-03(B)(1) and OAC rule 3745-17-03(B)(3).

b. Emission Limitations:

PE shall not exceed 0.005 grain per dscf of exhaust gases from each baghouse stack.

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from each baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub>.

c. Emission Limitations:

PE from loading into the storage silo (6000 cfm baghouse) shall not exceed 0.26 lb/hr and 1.13 tpy from the baghouse stack.

Emissions of PM<sub>10</sub> from loading into the storage silo (6000 cfm baghouse) shall not exceed 0.13 lb/hr and 0.56 tpy from the baghouse stack.

PE from loading into trucks (21,200 cfm baghouse) shall not exceed 0.91 lb/hr and 3.98 tpy.

Emissions of PM<sub>10</sub> from loading into trucks from the storage silo (21,200 cfm baghouse) shall not exceed 0.45 lb/hr and 1.99 tpy from the baghouse stack.

Applicable Compliance Method:

These limitations are based upon the design of the baghouses and compliance with the grain loading limitations. Compliance with the grain loading limitations has been demonstrated at similar, but larger, control equipment at this facility.

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60,

Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub>.

The tpy emission limitations were developed by multiplying the short-term allowable PE and PM-10 limitations (as appropriate) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitations, compliance shall also be shown with the annual emission limitations.

d. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from loading into trucks from the storage silo shall not exceed 0.68 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated using the following equation:

$$E = SU \times EF \times (1-CE)$$

where:

E = annual emissions, in tons;

SU = amount of sawdust unloaded per year, in tons;

EF = emission factor of 2 lbs PE/ton sawdust unloaded, taken from RACM Table 2.17-1, Fugitive Dust Emission Factors for Woodworking Operations; and

CE = control efficiency estimated to be 90% for the telescopic tube and 3-sided enclosure, as determined using RACM Table 2.17-3.

g) Miscellaneous Requirements

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an



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annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

F002 Silo Unloading F-002 - SILO UNLOADING Dust Collection Sizes and Reading				
<b>For:</b>		SILO UNLOADING DUST COLLECTOR		
<b>EPA ID#</b>		<b>F002</b>		
<b>KMC Asset #</b>		<b>P1-13323</b>		
Date: 07/09	KraftMaid Design Velocity =		4600	
Equipment:		Running Total for 4600 V		
HF29 75 HP 1750 RPM Fan Inlet 29"		21200 MAX CFM @ 4600 FPM		* Moved from Plant One - 7/09
21200 Max CFM @ 4600 fpm OV 12" SP		<b>19193</b>		
Size of pipe in inches		Amount of CFM in pipe		
1	SOUTH PICKUP TRUNK LINE	18	8129	8129
2	NORTH PICKUP TRUNK LINE	21	11064	19193



3. P001, P3-20865

Operations, Property and/or Equipment Description:

Woodworking equipment exhausting to a 36,432 cfm Baghouse, MASCO ID P3-20865

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 3 columns: Row Label, Applicable Rules/Requirements, and Applicable Emissions Limitations/Control Measures. It lists three rows (a, b, c) detailing specific rules and their corresponding emission limits for particulate matter and visible particulate emissions.



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Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Row 1: 07(A) are less stringent than the requirements established pursuant to OAC rules 3745-31-05(D)(1)(b) and OAC rule 3745-31-05(A).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

(3) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit. The PER shall include any deviations from the monitored pressure drop across the baghouse as well as the information required in e)(1) above.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

PE shall not exceed 1.56 lbs/hr and 6.84 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (1.56 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.



c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.78 lb/hr and 3.42 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (0.78 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.

Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; 36,000 cfm – 39,999 cfm. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the three plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust between 36,000 cfm and 39,999 cfm are part of this group.

Plant 1  
None

Plant 2  
P006 (P2-10916) – 39,400 cfm  
P007 (P2-10911) – 39,400 cfm  
P008 (P2-21588) – 39,400 cfm  
P010 (P2-10904) – 36,432 cfm  
P012 (P2-10903) – 36,432 cfm

P014 (P2-10905) – 39,400 cfm  
P019 (P2-10918) – 39,400 cfm  
P020 (P2-10915) – 39,400 cfm  
P021 (P2-10917) – 39,400 cfm

Plant 3

P001 (P3-20865) – 36,432 cfm

One of the emissions units from this group shall be selected for emissions testing every five years beginning in 2012. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.
- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and

for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the



testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

g) **Miscellaneous Requirements**

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>P001- CEFLA#5 2/1/2010</b> PLANT 3 DUST COLLECTORS.XLS CEFLA #5				
<b>Dust Collection Sizes and Reading</b>				
<b>For:</b>			CEFLA #5	
<b>EPA ID#</b>			P001	
<b>KMC Asset #</b>			P3-20865	
Date: 02/09	KraftMaid Design Velocity =		5200	
Running Total for 5200 V				
Equipment:				
HF33 100HP 91.4 BHP 825 RPM Fan Inlet 33"		31150 MAX CFM @ 5200 OV		23143
31150 Max CFM @ 5200 fpm OV 9" SP				
Size of pipe in inches			Amount of CFM in pipe	Running Total CFM
1	BRUSH ASSEMBLY DENNIBER P4-308	5	709	709



2	BRUSH ASSEMBLY DENNIBER P4-308	5	709	1418
3	BRUSH ASSEMBLY DENNIBER P4-308	5	709	2127
4	BRUSH ASSEMBLY DENNIBER P4-308	5	709	2836
5	BRUSH ASSEMBLY DENNIBER P4-308	6	1021	3857
6	BRUSH ASSEMBLY DENNIBER P4-308	6	1021	4878
7	DOWN DRAFT TABLE P4-309	10	2836	7714
8	SORBINI PANEL CLEANER P4-310	6	1021	8735
9	SORBINI PANEL CLEANER P4-310	6	1021	9756
10	SORBINI PANEL CLEANER P4-310	6	1021	10777
11	SORBINI PANEL CLEANER P4-310	8	1815	12592
12	BRUSH ASSEMBLY DENNIBER P4-318	5	709	13301
13	BRUSH ASSEMBLY DENNIBER P4-318	5	709	14010
14	BRUSH ASSEMBLY DENNIBER P4-318	5	709	14720
15	BRUSH ASSEMBLY DENNIBER P4-318	5	709	15429
16	BRUSH ASSEMBLY DENNIBER P4-318	6	1021	16450
17	BRUSH ASSEMBLY DENNIBER P4-318	6	1021	17471
18	DOWN DRAFT TABLE P4-319	10	2836	20307
19	DOWN DRAFT TABLE P4-320	10	2836	23143



4. P002, P3-20866

Operations, Property and/or Equipment Description:

Woodworking equipment exhausting to 58,500 cfm Baghouse MASCO ID P3-20866

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(D)(1)(b) with emissions limits for PM10 and visible particulate emissions. Row b: OAC rule 3745-31-05(A) with emissions limits for PE and fugitive emissions.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		loading into a dumpster shall not exceed 0.48 tpy.  Visible emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average.
c.	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A) OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)	The requirements established pursuant to OAC rules 3745-17-11(B), 3745-17-07(A), 3745-17-08(B) and 3745-17-07(B) are less stringent than the requirements established pursuant to OAC rules 3745-31-05(D)(1)(b) and 3745-31-05(A).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(3) The permittee shall also perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the area around the dumpster serving this emissions unit. The presence or absence of any visible emissions shall be noted in an



operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(4) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the dumpster area and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Visible emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, OAC rule 3745-17-03(B)(1) and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

PE shall not exceed 2.51 lbs/hr and 10.98 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (2.51 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 1.25 lbs/hr and 5.49 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (1.25 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.



Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from loading into a dumpster shall not exceed 0.48 tpy.

Applicable Compliance Method:

Compliance was demonstrated one time based upon the maximum dust loading as follows:

$$E = 1,907 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times .25 \times 1 \text{ ton}/2000 \text{ lbs} = 0.48 \text{ ton/year}$$

where:

E = estimated emissions in tons per year;

1,907 = the tons of sawdust anticipated to be loaded into trucks per year;

2 lbs/ton = an emission factor taken from RACM, Table 2.17-1, Fugitive Dust Emission Factors for Woodworking Operations; and

0.25 = an emission factor based upon estimated control efficiency of 75% for loading within a 3-sided enclosure.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; 40,000 cfm and more. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the three plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust 40,000 cfm and more are part of this group.

Plant 1

P008 (P1-13325) – 53,000 cfm

P009 (P1-13327) – 53,000 cfm

P014 (P1-24807) – 53,000 cfm

Plant 2

P013 (P2-10914) – 40,000 cfm

Plant 3

P002 (P3-20866) – 58,500 cfm

P005 (P3-12740) – 47,000 cfm  
P006 (P3-12741) – 47,000 cfm  
P007 (P3-20879) – 47,000 cfm  
P008 (TBD) - 42,500 cfm  
P009 (TBD) – 42,500 cfm

One of the emissions units from this group shall be selected for emissions testing every five years beginning in 2012. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.
- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:  
  
for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and  
  
for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.  
  
Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.



- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**g) Miscellaneous Requirements**

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>P002- CEFLA#6 2/1/2010 PLANT 3 DUST COLLECTORS.XLS CEFLA #6</b>				
<b>Dust Collection Sizes and Reading</b>				
<b>For:</b>		<b>CEFLA #6</b>		
<b>EPA ID#</b>		<b>P002</b>		
<b>KMC Asset #</b>		<b>P3-20866</b>		
Date: 02/2009	KraftMaid Design Velocity =			6400
Equipment:		Running Total for 6400 V		
HF41 250 HP 237 BHP 775 RPM Fan Inlet 41"		58500 MAX CFM @ 6400 FPM		
58500 Max CFM @ 6400 fpm 12" SP		0		
Size of pipe in inches		Amount of CFM in pipe		
1	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	5	873	873
2	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	5	873	1745
3	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	5	873	2618
4	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	5	873	3491
5	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	6	1257	4747
6	BRUSH ASSEMBLY DENNIBER P4-383 (PRIMER)	6	1257	6004
7	DOWN DRAFT TABLE P4-384 (PRIMER)	10	3491	9494



**Effective Date:** To be entered upon final issuance

8	SORBINI PANEL CLEANER P4-385 (PRIMER)	6	1257	10751
9	SORBINI PANEL CLEANER P4-385 (PRIMER)	6	1257	12008
10	SORBINI PANEL CLEANER P4-385 (PRIMER)	6	1257	13264
11	SORBINI PANEL CLEANER P4-385 (PRIMER)	8	2234	15498
12	SORBINI SMART SAND MACHINE (PRIMER)	7	1710	17209
13	SORBINI SMART SAND MACHINE (PRIMER)	7	1710	18919
14	SORBINI SMART SAND MACHINE (PRIMER)	10	3491	22410
15	DOWN DRAFT TABLE P4-394 (PRIMER)	10	3491	25900
16	DOWN DRAFT TABLE P4-395 (PRIMER)	10	3491	29391
17	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	5	873	30264
18	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	5	873	31136
19	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	5	873	32009
20	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	5	873	32882
21	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	6	1257	34138
22	BRUSH ASSEMBLY DENNIBER P4-402 (TOP COAT)	6	1257	35395
23	DOWN DRAFT TABLE P4-403 (TOP COAT)	10	3491	38886
24	SORBINI PANEL CLEANER P4-404 (TOP COAT)	6	1257	40142
25	SORBINI PANEL CLEANER P4-404 (TOP COAT)	6	1257	41399
26	SORBINI PANEL CLEANER P4-404 (TOP COAT)	6	1257	42655
27	SORBINI PANEL CLEANER P4-404 (TOP COAT)	8	2234	44889
28	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	5	873	45762
29	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	5	873	46635
30	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	5	873	47507
31	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	5	873	48380
32	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	6	1257	49637
33	BRUSH ASSEMBLY DENNIBER P4-415 (TOP COAT)	6	1257	50893
34	DOWN DRAFT TABLE P4-416 (TOP COAT)	10	3491	54384
35	PANEL CLEANER P4-418	6	1257	55641



5. P003, P3-12742

Operations, Property and/or Equipment Description:

Woodworking equipment exhausting into 34,750 cfm baghouse MASCO ID P3-12742

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.  Emissions of PM <sub>10</sub> shall not exceed 0.74 lb/hr and 3.26 tpy from the baghouse stack.  Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity as a 6-minute average.
b.	OAC rule 3745-31-05(A)	PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.  PE shall not exceed 1.49 lbs/hr and 6.52 tpy from the baghouse stack.  Fugitive PE and PM <sub>10</sub> emissions from the



Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row c lists OAC rules 3745-17-11(B), 3745-17-07(A), 3745-17-08(B), and 3745-17-07(B) with corresponding emission control text.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

(3) The permittee shall also perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the area around the dumpster serving this emissions unit. The presence or absence of any visible emissions shall be noted in an



operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
- (4) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:
- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
  - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the dumpster area and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Visible emissions of fugitive dust from the dumpster shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, OAC rule 3745-17-03(B)(1) and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

PE shall not exceed 1.49 lbs/hr and 6.52 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (1.49 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.74 lb/hr and 3.26 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (0.74 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.

Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from the dumpster for emissions units P003 and P004, combined, shall not exceed 0.54 tpy.

Applicable Compliance Method:

Compliance was demonstrated one time based upon the maximum dust loading as follows:

$$E = 2,148 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 0.25 \times 1 \text{ ton}/2000 \text{ lbs} = 0.54 \text{ ton/year}$$

where:

E = estimated emissions in tons per year;

2148 = the tons of sawdust anticipated to be loaded into trucks per year;

2 lbs/ton = an emission factor taken from RACM, Table 2.17-1, Fugitive Dust Emission Factors for Woodworking Operations; and

0.25 = an emission factor based upon estimated control efficiency of 75% for loading within a 3-sided enclosure.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; between 30,000 cfm and 35,999 cfm. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the 3 plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust between 30,000 cfm and 35,999 cfm are part of this group.

Plant 1

P010 (P1-13326) – 31,150 cfm

P015 (P1-25795) – 31,150 cfm

Plant 2

P011 (P2-10909) – 31,150 cfm

P015 (P2-10912) – 31,150 cfm

Plant 3

P004 (P3-12743) – 31,150 cfm

One of the emissions units from this group shall be selected for emissions testing every five years. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.

- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and

for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the



test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

g) **Miscellaneous Requirements**

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>P003- CEFLA#3 2/1/2010 PLANT 3 DUST COLLECTORS.XLS CEFLA #3</b>				
<b>Dust Collection Sizes and Reading</b>				
<b>For:</b>		<b>CEFLA #3</b>		
<b>EPA ID#</b>		<b>P003</b>		
<b>KMC Asset #</b>		<b>P3-12742</b>		
Date: 02/09	KraftMaid Design Velocity =			5200
Equipment:		Running Total for 5200 V		
HF33 100 HP 91.4 BHP 825 RPM Fan Inlet 33"		31150 MAX CFM @ 5200 FPM		
31150 Max CFM @ 5200 fpm OV 9" SP		<b>43733</b>		
Size of pipe in inches		Amount of CFM in pipe		
1	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	1021
2	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	2042
3	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	3063
4	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	4084
5	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	5105
6	BRUSH ASSEMBLY DENNIBER P4-03 (PRIMER)	6	1021	6126
7	SORBINI PANEL CLEANER P4-05 (PRIMER)	8	1815	7941
8	SORBINI PANEL CLEANER P4-05 (PRIMER)	8	1815	9756
9	SORBINI PANEL CLEANER P4-05 (PRIMER)	8	1815	11571
10	SORBINI PANEL CLEANER P4-05 (PRIMER)	6	1021	12592



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11	SORBINI SMART SAND MACHINE (PRIMER)	7	1390	13982
12	SORBINI SMART SAND MACHINE (PRIMER)	7	1390	15372
13	SORBINI SMART SAND MACHINE (PRIMER)	10	2836	18208
14	DOWN DRAFT TABLE P4-13 (PRIMER)	8	1815	20023
15	DOWN DRAFT TABLE P4-14 (PRIMER)	8	1815	21838
16	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	22859
17	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	23880
18	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	24901
19	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	25922
20	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	26943
21	BRUSH ASSEMBLY DENNIBER P4-39 (TOP COAT)	6	1021	27964
22	DOWN DRAFT TABLE P4-277 (TOP COAT)	8	1815	29779
23	SORBINI PANEL CLEANER P4-23 (TOP COAT)	8	1815	31594
24	SORBINI PANEL CLEANER P4-23 (TOP COAT)	8	1815	33410
25	SORBINI PANEL CLEANER P4-23 (TOP COAT)	8	1815	35225
26	SORBINI PANEL CLEANER P4-23 (TOP COAT)	6	1021	36246
27	DMC ROTO SAND UNIT P4-33 (TOP COAT)	10	2836	39082
28	DMC ROTO SAND UNIT P4-33 (TOP COAT)	8	1815	40897
29	DMC ROTO SAND UNIT P4-33 (TOP COAT)	6	1021	41918
30	DOWN DRAFT TABLE P4-278 (TOP COAT)	8	1815	43733



6. P004, P3-12743

Operations, Property and/or Equipment Description:

Woodworking equipment with 31,150 cfm baghouse P3-12743

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 3 columns: Row ID, Applicable Rules/Requirements, and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(D)(1)(b) with emissions limits for particulate matter and PM10. Row b: OAC rule 3745-31-05(A) with emissions limits for particulate emissions (PE) and fugitive emissions.



Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Row c lists OAC rules 3745-17-11(B), 3745-17-07(A), 3745-17-08(B), and 3745-17-07(B) with corresponding emission control text.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

(3) The permittee shall also perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the area around the dumpster serving this emissions unit. The presence or absence of any visible emissions shall be noted in an



operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(4) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the dumpster area and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Visible emissions of fugitive dust from the dumpster shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, OAC rule 3745-17-03(B)(1) and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

PE shall not exceed 1.34 lbs/hr and 5.85 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (1.34 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.67 lb/hr and 2.92 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (0.67 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.



Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from the dumpster for emissions units P003 and P004, combined, shall not exceed 0.54 tpy.

Applicable Compliance Method:

Compliance was demonstrated one time based upon the maximum dust loading as follows:

$$E = 2,148 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 0.25 \times 1 \text{ ton}/2000 \text{ lbs} = 0.54 \text{ ton/year}$$

where:

E = estimated emissions in tons per year;

2148 = the tons of sawdust anticipated to be loaded into trucks per year;

2 lbs/ton = an emission factor taken from RACM, Table 2.17-1, Fugitive Dust Emission Factors for Woodworking Operations; and

0.25 = an emissions factor based upon estimated control efficiency of 75% for loading within a 3-sided enclosure.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; between 30,000 cfm and 35,999 cfm. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the three plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust between 30,000 cfm and 35,999 cfm are part of this group.

Plant 1

P010 (P1-13326) – 31,150 cfm

P015 (P1-25795) – 31,150 cfm

Plant 2

P011 (P2-10909) – 31,150 cfm

P015 (P2-10912) – 31,150 cfm

Plant 3

P004 (P3-12743) – 31,150 cfm

One of the emissions units from this group shall be selected for emissions testing every five years beginning in 2012. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.

- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and

for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the



Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

g) Miscellaneous Requirements

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

Table with 5 columns: Equipment, Size of pipe in inches, Amount of CFM in pipe, Running Total for 5200 V, and 31150 MAX CFM @ 5200 FPM. Includes summary rows for Date, KraftMaid Design Velocity, and Running Total.



**Effective Date:** To be entered upon final issuance

6	BRUSH ASSEMBLY DENNIBER P4-136 (PRIMER)	6	1021	6126
7	SORBINI PANEL CLEANER P4-141 (PRIMER)	4	454	6580
8	SORBINI PANEL CLEANER P4-141 (PRIMER)	6	1021	7601
9	SORBINI PANEL CLEANER P4-141 (PRIMER)	6	1021	8622
10	SORBINI PANEL CLEANER P4-141 (PRIMER)	6	1021	9643
11	SORBINI SMART SAND MACHINE (PRIMER)	7	1390	11033
12	SORBINI SMART SAND MACHINE (PRIMER)	7	1390	12422
13	SORBINI SMART SAND MACHINE (PRIMER)	10	2836	15258
14	DOWN DRAFT TABLE P4-149 (PRIMER)	8	1815	17074
15	DOWN DRAFT TABLE P4-150 (PRIMER)	8	1815	18889
16	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	19910
17	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	20931
18	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	21952
19	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	22973
20	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	23994
21	BRUSH ASSEMBLY DENNIBER P4-179 (TOP COAT)	6	1021	25015
22	DOWN DRAFT TABLE P4-180 (TOP COAT)	8	1815	26830
23	SORBINI PANEL CLEANER P4-181 (TOP COAT)	4	454	27284
24	SORBINI PANEL CLEANER P4-181 (TOP COAT)	6	1021	28305
25	SORBINI PANEL CLEANER P4-181 (TOP COAT)	6	1021	29326
26	SORBINI PANEL CLEANER P4-181 (TOP COAT)	6	1021	30347
27	DMC ROTO SAND UNIT P4-135 (TOP COAT)	8	1815	32162
28	DMC ROTO SAND UNIT P4-135 (TOP COAT)	8	1815	33977
29	DMC ROTO SAND UNIT P4-135 (TOP COAT)	10	2836	36813
30	DOWN DRAFT TABLE P4-188 (TOP COAT)	8	1815	38628



7. Emissions Unit Group - P005, P006 and P007: P005, P006 and P007

Table with 2 columns: EU ID and Operations, Property and/or Equipment Description. Rows include P005, P006, and P007, all describing woodworking equipment with 47,000 cfm baghouse.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(D)(1)(b) with PM10 and opacity limits. Row b: OAC rule 3745-31-05(A) with particulate emission limits.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)	The requirements established pursuant to OAC rules 3745-17-11(B) and 3745-17-07(A), are less stringent than the requirements established pursuant to OAC rules 3745-31-05(D)(1)(b) and 3745-31-05(A).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(3) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit. The PER shall include any deviations from the monitored pressure drop across the baghouse as well as the information required in e)(1) above.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

PE shall not exceed 2.01 lbs/hr and 8.82 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (2.01 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 1.01 lbs/hr and 4.41 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (1.01 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.

Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; 40,000 cfm and more. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the three plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust 40,000 cfm and more are part of this group.

Plant 1

P008 (P1-13325) – 53,000 cfm

P009 (P1-13327) – 53,000 cfm

P014 (P1-24807) – 53,000 cfm

Plant 2

P013 (P2-10914) – 40,000 cfm

Plant 3

P002 (P3-20866) – 58,500 cfm

P005 (P3-12740) – 47,000 cfm

P006 (P3-12741) – 47,000 cfm

P007 (P3-20879) – 47,000 cfm

P008 (TBD) - 42,500 cfm

P009 (TBD) – 42,500 cfm

One of the emissions units from this group shall be selected for emissions testing every five years beginning in 2012. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.

- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and

for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the

testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

g) **Miscellaneous Requirements**

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>P005- SANDING LINE #2 2/1/2010 PLANT 3 DUST COLLECTORS.XLS SANDING LINE #2</b>				
<b>Dust Collection Sizes and Reading</b>				
<b>For:</b>		<b>SANDING MACHINES LINE #2</b>		
<b>EPA ID#</b>		<b>P005</b>		
<b>KMC Asset #</b>		<b>P3-12740</b>		
Date: 02/09	KraftMaid Design Velocity =		5800	
Equipment:		Running Total for 5800 V		
HF37 200 HP 197 BHP 874 RPM Fan Inlet 37"		48000 MAX CFM @ 5800 FPM		
48000 Max CFM @ 5800fpm 12.5" SP		<b>53145</b>		
Size of pipe in inches		Amount of CFM in pipe		
1	Sanding Line #2 LSM 8 3-Head	10	3163	3163
2	Sanding Line #2 LSM 8 3-	10	3163	6327



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3	Head				
	Sanding Line #2 LSM 8 3-Head	8	2025		8351
4	Sanding Line #2 LSM 8 3-Head	7	1550		9901
5	Sanding Line #2 LSM 8 3-Head	6	1139		11040
6	Sanding Line #2 LSM 8 3-Head	6	1139		12179
7	Sanding Line #2 Gyro Fladder	8	2025		14204
8	Sanding Line #2 Gyro Fladder	8	2025		16228
9	Sanding Line #2 LSM 8 5-Head	10	3163		19391
10	Sanding Line #2 LSM 8 5-Head	10	3163		22555
11	Sanding Line #2 LSM 8 5-Head	8	2025		24579
12	Sanding Line #2 LSM 8 5-Head	7	1550		26129
13	Sanding Line #2 LSM 8 5-Head	7	1550		27680
14	Sanding Line #2 LSM 8 5-Head	7	1550		29230
15	Sanding Line #2 LSM 8 5-Head	6	1139		30368
16	Sanding Line #2 LSM 8 5-Head	6	1139		31507
17	Sanding Line #2 LSM 8 5-Head	4	506		32013
18	Sanding Line #2 LSM 8 5-Head	4	506		32520
19	Sanding Line #2 LSM8	8	2025		34544
20	Sanding Line #2 LSM8	6	1139		35683
21	Sanding Line #2 LSM8	6	1139		36822
22	Sanding Line #2 LSM8	6	1139		37961
23	Sanding Line #2 LSM8	6	1139		39099
24	Sanding Line #2 LSM8	6	1139		40238
25	Sanding Line #2 Gyro Fladder	8	2025		42263
26	Sanding Line #2 Gyro Fladder	8	2025		44287
27	Sanding Line #2 EA4	6	1139		45426
28	Sanding Line #2 EA4	6	1139		46565
29	Sanding Line #2 EA4	6	1139		47704
30	Sanding Line #2 EA4	4	506		48210
31	Sanding Line #2 EA4	4	506		48716
32	Molding Cell Saw	4	506		49222
33	Molding Cell Saw	4	506		49728
34	Sanding Line Repair Table	6	1139		50867
35	Sanding Line Repair Table	6	1139		52006
36	Sanding Line Repair Table	6	1139		53145

**P006- SANDING LINE #1 2/1/2010 PLANT 3 DUST COLLECTORS.XLS SANDING LINE #1**

**Dust Collection Sizes and Reading**

<b>For:</b>	<b>SANDING MACHINES LINE #1</b>
<b>EPA ID#</b>	<b>P006</b>
<b>KMC Asset #</b>	<b>P3-12741</b>
Date: 02/09	KraftMaid Design Velocity = 5800



**Effective Date:** To be entered upon final issuance

Equipment:		Running Total for 5800 V		
HF37 200 HP 197 BHP 874 RPM Fan Inlet 37"		48000 MAX CFM @ 5800 FPM		
48000 Max CFM @ 5800fpm 12.5" SP		<b>48716</b>		
Size of pipe in inches			Amount of CFM in pipe	
1	Sanding Line #1 LSM 8 3-Head	10	3163	3163
2	Sanding Line #1 LSM 8 3-Head	10	3163	6327
3	Sanding Line #1 LSM 8 3-Head	8	2025	8351
4	Sanding Line #1 LSM 8 3-Head	7	1550	9901
5	Sanding Line #1 LSM 8 3-Head	6	1139	11040
6	Sanding Line #1 LSM 8 3-Head	6	1139	12179
7	Sanding Line #1 Gyro Fladder	8	2025	14204
8	Sanding Line #1 Gyro Fladder	8	2025	16228
9	Sanding Line #1 LSM 8 5-Head	10	3163	19391
10	Sanding Line #1 LSM 8 5-Head	10	3163	22555
11	Sanding Line #1 LSM 8 5-Head	8	2025	24579
12	Sanding Line #1 LSM 8 5-Head	7	1550	26129
13	Sanding Line #1 LSM 8 5-Head	7	1550	27680
14	Sanding Line #1 LSM 8 5-Head	7	1550	29230
15	Sanding Line #1 LSM 8 5-Head	6	1139	30368
16	Sanding Line #1 LSM 8 5-Head	6	1139	31507
17	Sanding Line #1 LSM 8 5-Head	4	506	32013
18	Sanding Line #1 LSM 8 5-Head	4	506	32520
19	Sanding Line #1 LSM8	8	2025	34544
20	Sanding Line #1 LSM8	6	1139	35683
21	Sanding Line #1 LSM8	6	1139	36822
22	Sanding Line #1 LSM8	6	1139	37961
23	Sanding Line #1 LSM8	6	1139	39099
24	Sanding Line #1 LSM8	6	1139	40238
25	Sanding Line #1 Gyro Fladder	8	2025	42263
26	Sanding Line #1 Gyro Fladder	8	2025	44287
27	Sanding Line #1 EA4	6	1139	45426
28	Sanding Line #1 EA4	6	1139	46565
29	Sanding Line #1 EA4	6	1139	47704
30	Sanding Line #1 EA4	4	506	48210
31	Sanding Line #1 EA4	4	506	48716

**P007- HINGING 2/1/2010 PLANT 3 DUST COLLECTORS.XLS HINGING  
 Dust Collection Sizes and Reading**

<b>For:</b>	Hinging Line
<b>EPA ID#</b>	<b>P007</b>
<b>KMC Asset #</b>	<b>P3-20879</b>



**Effective Date:** To be entered upon final issuance

Date: 02/09		KraftMaid Design Velocity =		5200	
Equipment:			Running Total for 5200 V		
HF37 150 HP 142 BHP 801 RPM Fan Inlet 37"			39400 MAX CFM @ 5200 FPM		
39400 Max CFM @ 5200 fpm OV 12" SP			<b>32616</b>		
Size of pipe in inches			Amount of CFM in pipe		
1	Hinge Cell #3 EZR Halfmoon Drill	4	454	454	
2	Hinge Cell #3 EZR Cup Drill	4	454	908	
3	Hinge Cell #3 EZR Snake Eyes Drill	4	454	1361	
4	Hinge Cell #3 Bumper Drill	4	454	1815	
5	Hinge Cell #3 Cup Hinge Drill	4	454	2269	
6	Drill Front Cell Bumper Drill	2	113	2382	
7	Mission Oak Cell Table Drill	2	113	2496	
8	Mission Oak Cell Table Drill	2	113	2609	
9	Mission Oak Cell Table Drill	2	113	2723	
10	Mission Oak Cell Table Drill	4	454	3176	
11	Pine Cell EZR Snake Eyes Drill	4	454	3630	
12	Pine Cell EZR Bumper Drill	4	454	4084	
13	Pine Cell EZR Pine EZR Drill	4	454	4538	
14	Pine Cell Bumper Drill	3	255	4793	
15	Pine Cell Bumper Drill	4	454	5247	
16	End Panel Cell Whirlwind Sander	5	709	5956	
17	End Panel Cell Delta Shaper	6	1021	6977	
18	End Panel Cell Back Groover	0	0	6977	
19	End Panel Cell Delta Table Saw	5	709	7686	
20	KSMC Cell KSMC Drill	4	454	8140	
21	KSMC Cell KSMC Drill	4	454	8593	
22	KSMC Cell Bumper Drill	4	454	9047	
23	Hinge Cell #4 EZR Cup Drill	4	454	9501	
24	Hinge Cell #4 EZR Halfmoon Drill	4	454	9955	
25	Hinge Cell #4 EZR	3	255	10210	



Effective Date: To be entered upon final issuance

	Snake Eyes Drill			
26	Hinge Cell #4 Cup Hinge Drill	4	454	10664
27	Hinge Cell #4 Bumper Drill	3	255	10919
28	Hinge Cell #5 EZR Halfmoon Drill	4	454	11373
29	Hinge Cell #5 EZR Cup Drill	4	454	11827
30	Hinge Cell #5 EZR Snake Eyes Drill	4	454	12280
31	Hinge Cell #5 Cup Hinge Drill	4	454	12734
32	Hinge Cell #5 Bumper Drill	3	255	12989
33	Hinge Cell #6 EZR Halfmoon Drill	4	454	13443
34	Hinge Cell #6 EZR Cup Drill	4	454	13897
35	Hinge Cell #6 EZR Snake Eyes Drill	4	454	14351
36	Hinge Cell #6 Cup Hinge Drill	4	454	14805
37	Hinge Cell #6 Bumper Drill	4	454	15258
38	Hinge Cell #7 EZR Halfmoon Drill	4	454	15712
39	Hinge Cell #7 EZR Cup Drill	4	454	16166
40	Hinge Cell #7 EZR Snake Eyes Drill	4	454	16620
41	Hinge Cell #7 Cup Hinge Drill	4	454	17074
42	Hinge Cell #7 Bumper Drill	3	255	17329
43	Hinge Cell #8 EZR Halfmoon Drill	4	454	17783
44	Hinge Cell #8 EZR Cup Drill	4	454	18236
45	Hinge Cell #8 EZR Snake Eyes Drill	4	454	18690
46	Hinge Cell #8 Cup Hinge Drill	4	454	19144
47	Hinge Cell #8 Bumper Drill	4	454	19598
48	Hinge Cell #1 EZR Halfmoon Drill	4	454	20051
49	Hinge Cell #1 EZR Cup Drill	4	454	20505
50	Hinge Cell #1 EZR Snake Eyes Drill	3	255	20760
51	Hinge Cell #1 Cup	4	454	21214



**Effective Date:** To be entered upon final issuance

	Hinge Drill			
52	Hinge Cell #1 Bumper Drill	4	454	21668
53	Hinge Cell #2 EZR Halfmoon Drill	4	454	22122
54	Hinge Cell #2 EZR Cup Drill	4	454	22576
55	Hinge Cell #2 EZR Snake Eyes Drill	3	255	22831
56	Hinge Cell #2 Cup Hinge Drill	4	454	23285
57	Hinge Cell #2 Bumper Drill	4	454	23738
58	Expedite Cell Cup Hinge Drill	4	454	24192
59	Expedite Cell Cup Hinge Drill	4	454	24646
60	Expedite Cell EZR Cup Hinge Drill	4	454	25100
61	Expedite Cell EZR Cup Hinge Drill	4	454	25554
62	Expedite Cell EZR Snake Eyes Drill	3	255	25809
63	Expedite Cell Cup Hinge Drill	4	454	26263
64	Expedite Cell Bumper Drill	4	454	26716
65	Sanding Line #2 2-Head Sander	8	1815	28531
66	Sanding Line #2 2-Head Sander	8	1815	30347
67	Sanding Line #2 2-Head Sander Cosma	10	2836	33183
68	Sanding Line #2 3-Head Sander	8	1815	34998
69	Sanding Line #2 3-Head Sander	8	1815	36813
70	Sanding Line #2 3-Head Sander	8	1815	38628
71	Sanding Line #2 Crossgrain Sander	7	1390	40018
72	Sanding Line #2 Crossgrain Sander	7	1390	41408
73	Sanding Line #2 Crossgrain Sander	7	1390	42797
74	Sanding Line #2 Crossgrain Sander	7	1390	44187
75	Sanding Line #2 Vacuum Blower	12	4084	32616



8. Emissions Unit Group - P008 and P009: P008 and P009

Table with 2 columns: EU ID, Operations, Property and/or Equipment Description. Rows for P008 and P009.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Rows a, b, c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(A)	OAC rules 3745-17-11(B) and 3745-17-07(A), are less stringent than the requirements established pursuant to OAC rules 3745-31-05(D)(1)(b) and 3745-31-05(A).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(3) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

e) Reporting Requirements

- (1) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) each year in the PER and shall cover the previous year.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit. The PER shall include any deviations from the monitored pressure drop across the baghouse as well as the information required in e)(1) above.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a and b)(1)b of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

PE shall not exceed 1.82 lbs/hr and 7.98 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10) and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (1.82 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.91 lb/hr and 3.99 tpy from the baghouse stack.

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 and the requirements specified in f)(2).

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> limitation (0.91 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.

Applicable Compliance Method:

Compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM<sub>10</sub> and the requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. For the purpose of emissions testing, some of the woodworking emissions units from MASCO's Plants 1, 2 and 3 have been grouped together as similar units based upon the size of the fabric filters; 40,000 cfm and more. These units are listed below. This list of emissions units may change over time as units are installed, modified or removed from the three plants. Regardless of the list below, any woodworking emissions units which are controlled by a fabric filter with an air exhaust 40,000 cfm and more are part of this group.

Plant 1

P008 (P1-13325) – 53,000 cfm

P009 (P1-13327) – 53,000 cfm

P014 (P1-24807) – 53,000 cfm

Plant 2

P013 (P2-10914) – 40,000 cfm

Plant 3

P002 (P3-20866) – 58,500 cfm

P005 (P3-12740) – 47,000 cfm

P006 (P3-12741) – 47,000 cfm

P007 (P3-20879) – 47,000 cfm

P008 (TBD) - 42,500 cfm

P009 (TBD) – 42,500 cfm

One of the emissions units from this group shall be selected for emissions testing every five years beginning in 2012. The selection of the unit for testing shall be based upon considerations such as production, baghouse maintenance issues, performance and other considerations as may be pertinent. The selection of the unit to be tested shall be made jointly by MASCO and Ohio EPA, Northeast District Office.

Some of the emissions units in this group may exhaust only inside the plant. In some cases the configuration of the baghouse stack and/or the air conditioning unit will not allow for Reference Method 1 to be met. These emissions units shall not be considered for emissions testing.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM<sub>10</sub> per dscf from the baghouse stack and with the PE and PM<sub>10</sub> hourly mass emission limitations specified in b)(1)a and b)(1)b.

- c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

for PE - 40 CFR Part 60, Appendix A, Methods 1 through 5; and

for PM<sub>10</sub> - 40 CFR Part 51, Appendix M, Method 201.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is at current operating conditions unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the

testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

g) **Miscellaneous Requirements**

- (1) The permittee shall submit an updated Emissions Unit Equipment Table for this emissions unit to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include an updated demonstration of loading to the baghouse. The updated table shall include a complete list of equipment for each emissions unit (including an identification of all equipment that is/are permanently shut down and dismantled and new or replacement equipment) as of the end of the calendar year and shall highlight or otherwise flag the changes from the previous year. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included with the PER.

After this report is submitted, the Director (the Ohio EPA, Northeast District Office) may consider the changes to determine if a modification to the issued permit is necessary. In general, a few changes which are not significant and which do not affect the operation of the control equipment will not trigger a request for a submittal of an application to modify the issued permit.

The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an annual basis. The updated table shall include the complete list of such equipment including any PTI exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

<b>Dust Collection Sizes and Reading</b>				
		<b>For:</b>	<b>JIT DOOR CELL</b>	
		<b>EPA ID#</b>	<b>P008</b>	
		<b>KMC Asset #</b>	<b>TBD</b>	
Date: 02/09			KraftMaid Design Velocity =	5691
				Running Total for 5691 V
<b>Equipment:</b>				

HBCF52 150HP 142 BHP 1240 RPM Fan Inlet 52"		42500 MAX CFM @ 5691 OV		42369	
42500 Max CFM @ 5691 fpm IV 13" SP					
		Size of pipe in inches		Amount of CFM in pipe	
1	Moulder	14		6084	6084
2	Opti-Sand	4		497	6580
3		4		497	7077
4		4		497	7574
5		4		497	8070
6		4		497	8567
7		4		497	9063
8		4		497	9560
9		4		497	10057
10	Grinder	8		1987	12043
11	S90 chop saw	6		1117	13161
12	T-rex	5		776	13937
13		5		776	14713
14		5		776	15489
15		5		776	16265
16	Martin Shaper	6		1117	17382
17	Balestrini Miter Machine	8		1987	19369
18	Balestrini Miter Machine	8		1987	21355
19	Panel Router 1	6		1117	22472
		10		3104	25576
	Panel Router 2	6		1117	26694
		10		3104	29798
	Panel Sander-Heeseman LSM	6		1117	30915
		6		1117	32033
		6		1117	33150
		6		1117	34267
		6		1117	35385
		6		1117	36502
		6		1117	37620
		6		1117	38737
		6		1117	39854
		9		2514	42369

<b>Dust Collection Sizes and Reading</b>			
<b>For: JIT DOOR CELL</b>			
<b>EPA ID#</b>	<b>P009</b>		
<b>KMC Asset #</b>	<b>TBD</b>		

**Draft Permit-to-Install and Operate**  
 MASCO Cabinetry, Middlefield LLC (Plant 3)

**Permit Number:** P0106466

**Facility ID:** 0204000360

**Effective Date:** To be entered upon final issuance

Date: 02/09			KraftMaid Design Velocity = 5691	Running Total for 5691 V
Equipment:				
HBCF52 150HP 142 BHP 1240 RPM Fan Inlet 52"	42500 MAX CFM @ 5691 OV			<b>42182</b>
42500 Max CFM @ 5691 fpm IV 13" SP				
	Size of pipe in inches		Amount of CFM in pipe	
1 Edge Router 1	6		1117	1117
2	10		3104	4221
3 Edge Router 2	6		1117	5339
4	10		3104	8443
5 Finish Sander-Heeseman LSM	6		1117	9560
6	6		1117	10678
7	6		1117	11795
8	7		1521	13316
9	7		1521	14837
10	7		1521	16358
11	7		1521	17879
12	7		1521	19400
13	7		1521	20920
14	9		2514	23435
15 Steggar Mullion Machine	4		497	23931
16 Weeke BP-Mullion area	6		1117	25049
17	10		3104	28153
18 Holzma-380	6		1117	29270
19	6		1117	30387
	8		1987	32374
Holzma-380	6		1117	33491
	6		1117	34609
	8		1987	36595
Altendorf	4		497	37092
Grinder	8		1987	39078
S35 Chop Saw	6		1117	40196

**Draft Permit-to-Install and Operate**  
MASCO Cabinetry, Middlefield LLC (Plant 3)

**Permit Number:** P0106466

**Facility ID:** 0204000360

**Effective Date:** To be entered upon final issuance

Grinder	8		1987	42182
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