



Environmental Protection Agency

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

2/24/2011

Mr. Tim More  
Masco Cabinetry Middlefield LLC, (Plant #1)  
16052 Industrial Parkway  
P.O. Box 1055  
Middlefield, OH 44062

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0228000186  
Permit Number: P0107177  
Permit Type: Administrative Modification  
County: Geauga

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:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-NEDO





## Response to Comments

Response to comments for: Permit-To-Install and Operate

Facility ID:	0228000186
Facility Name:	Masco Cabinetry Middlefield LLC, (Plant #1)
Facility Description:	Manufacturer of wooden cabinets
Facility Address:	16052 INDUSTRIAL PKWY Middlefield, OH 44062 Geauga County
Permit #:	P0107177, Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Plain Dealer on 01/24/2011. The comment period ended on 02/23/2011.	
Hearing date (if held)	NA
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: **Fugitive emissions**

- a. Comment: **Fugitive emissions for emissions units P009, P010, P012, P014 and P015 are incorrectly listed as from truck loading in the draft permit. Fugitive emissions from these emissions units are from the dumpster areas.**
- b. Response: **These corrections were made to the draft permit. The emissions units' tables were also updated as indicated.**

2. Topic: **None**

- a. Comment: **None**
- b. Response: **None**





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Masco Cabinetry Middlefield LLC, (Plant #1)**

Facility ID:	0228000186
Permit Number:	P0107177
Permit Type:	Administrative Modification
Issued:	2/24/2011
Effective:	2/24/2011
Expiration:	10/15/2014





Division of Air Pollution Control
Permit-to-Install and Operate
for
Masco Cabinetry Middlefield LLC, (Plant #1)

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## Authorization

Facility ID: 0228000186  
Application Number(s): A0040690  
Permit Number: P0107177  
Permit Description: FEPTIO administrative modification  
Permit Type: Administrative Modification  
Permit Fee: \$500.00  
Issue Date: 2/24/2011  
Effective Date: 2/24/2011  
Expiration Date: 10/15/2014  
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Masco Cabinetry Middlefield LLC, (Plant #1)  
16052 INDUSTRIAL PKWY  
Middlefield, OH 44062

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

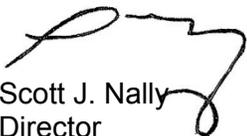
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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: P0107177  
Permit Description: FEPTIO administrative modification

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

**Emissions Unit ID: P008**  
Company Equipment ID: P1-13325  
Superseded Permit Number: P0104980  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P011**  
Company Equipment ID: P1-13324  
Superseded Permit Number: P0104980  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P012**  
Company Equipment ID: P1-13322  
Superseded Permit Number: P0104980  
General Permit Category and Type: Not Applicable

**Group Name: P009 & P014**

<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	P1-13327
Superseded Permit Number:	P0104980
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P014</b>
Company Equipment ID:	P1-24807
Superseded Permit Number:	P0104980
General Permit Category and Type:	Not Applicable

**Group Name: P010 and P015**

<b>Emissions Unit ID:</b>	<b>P010</b>
Company Equipment ID:	P1-13326
Superseded Permit Number:	P0104980
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P015</b>
Company Equipment ID:	P1-25795
Superseded Permit Number:	P0104607
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.

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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).

**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 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. P008, P1-13325**

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

Woodworking equipment exhausting to a 53,000 cfm baghouse, MASCO ID P1-13325

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)	<p>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.</p> <p>PM<sub>10</sub> emissions shall not exceed 1.14 pounds per hour and 4.95 tons per year from the baghouse stack.</p> <p>Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity as a 6-minute average.</p>
b.	OAC rule 3745-31-05(A)	<p>PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack.</p> <p>PE shall not exceed 2.27 pounds per hour and 9.95 tons per year from the baghouse stack.</p> <p>Fugitive PE and PM<sub>10</sub> emissions shall not</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 7.26 tons per year from truck loading.  Visible emissions of fugitive dust from truck loading 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 rule 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 perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from loading sawdust 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.
- (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 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 Limitation:  
  
Visible PE from the baghouse shall not exceed 0% opacity as a 6-minute average.  
  
Visible emissions of fugitive dust from truck loading 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 2.27 pounds per hour and 9.95 tons per year 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 emission limitation (2.27 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:

PM<sub>10</sub> emissions shall not exceed 1.14 pounds per hour and 4.95 tons per year 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 PM<sub>10</sub> emission limitation (1.14 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:

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

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

Applicable Compliance Method:

Compliance with the grain loading limitations 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).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions shall not exceed 7.26 tons per year from truck loading.

Applicable Compliance Method:

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

$$E = 7,256 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 7.26 \text{ tons/year}$$

where:

E = estimated emissions, in tons per year;

7,256 = the tons of sawdust anticipated to be loaded into trucks per year; and

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

(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 the PM<sub>10</sub> emission limitation of 0.0025 grain 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.

P008 - Special Parts 2/1/2010 PLANT 1 DUST COLLECTORS.XLS CUSTOM CUTTING				
Dust Collection Sizes and Reading				
<b>For:</b>		<b>SPECIAL PARTS</b>		
<b>EPA ID#</b>		<b>P008</b>		
<b>KMC Asset #</b>		<b>P1-13325</b>		
Feb-10		KraftMaid Design Velocity =		5800
CFM				
Equipment:		Running Total for 5800 V		
HF41 200HP 189 BHP 727 RPM	<b>53000</b>	MAX CFM @ 5800v	<b>18442</b>	
Fan inlet 41"		53000 Max CFM @ 5800v 11" SP		
Size of pipe in inches		Amount of CFM in pipe		
1	DeWalt Chop Saw	2	127	127
2	DeWalt Chop Saw	2	127	253
3	DeWalt Chop Saw	2	127	380
4	Power Matic Shaper	5	791	1170
5	Power Matic Shaper	5	791	1961
6	Power Matic Shaper	5	791	2752
7	Power Matic Shaper	5	791	3543
8	Centauro Band Saw	0	0	3543
9	Down Draft Table	6	1139	4682
10	Down Draft Table	6	1139	5821
11	CounterTop Sander	2	127	5947
12	DeWalt Chop Saw	0	0	5947
13	Down Draft Table	6	1139	7086
14	Down Draft Table	6	1139	8225
15	Down Draft Table	0	0	8225
16	Down Draft Table	0	0	8225
17	Ayen Drilling Machine	5	791	9016



18	Ayen Drilling Machine	3	285	9300
19	Edge Band Trimmer	3	285	9585
20	Whirlwind Sander	6	1139	10724
21	Whirlwind Sander	6	1139	11863
22	Uni Saw	5	791	12654
23	Altendorf Table Saw	4	506	13160
24	Altendorf Table Saw	5	791	13950
25	Furnas Saw	5	791	14741
26	Power Matic Table Saw	0	0	14741
27	Power Matic Table Saw	5	791	15532
28	Huffman Dovetail Single	4	506	16038
29	Huffman Dovetail Double	4	506	16544
30	Delta Cut Off Saw	2	127	16671
31	Delta Cut Off Saw	2	127	16798
32	Whirlwind Sander	0	0	16798
33	DeWalt Chop Saw	4	506	17304
34	DeWalt Chop Saw	3	285	17588
35	DeWalt Chop Saw	3	285	17873
36	DeWalt Chop Saw	3	285	18158
37	DeWalt Chop Saw	3	285	18442



2. P011, P1-13324

Operations, Property and/or Equipment Description:

Wood chipper with 4,968 cfm baghouse, MASCO ID P1-13324

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.  PM <sub>10</sub> emissions shall not exceed 0.11 pound per hour and 0.47 ton per year 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 0.21 pound per hour and 0.93 ton per year from the baghouse stack.  Fugitive PE and PM <sub>10</sub> emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 0.62 ton per year from truck loading.</p> <p>Visible emissions of fugitive dust from truck loading shall not exceed 10% opacity as a 3-minute average.</p>
c.	<p>OAC rule 3745-17-11(B) OAC rule 3745-17-07(A) OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)</p>	<p>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).</p>

(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 weekly 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 perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from loading sawdust 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.
- (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 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 Limitation:  
  
Visible PE from the baghouse shall not exceed 0% opacity as a 6-minute average.  
  
Visible emissions of fugitive dust from truck loading 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 0.21 pound per hour and 0.93 ton per year from the baghouse stack.

Applicable Compliance Method:

This limitation is based upon the design of the baghouse and compliance with the grain loading limitation. Compliance with the grain loading limitation has been demonstrated at similar, but larger, control equipment at this facility.

If required, compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10).

The tpy emission limitation was developed by multiplying the short-term allowable PE emission limitation (0.21 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.

c. Emission Limitation:

PM<sub>10</sub> emissions shall not exceed 0.11 pound per hour and 0.47 ton per year from the baghouse stack.

Applicable Compliance Method:

This limitation is based upon the design of the baghouse and compliance with the grain loading limitation. Compliance with the grain loading limitation has been demonstrated at similar, but larger, control equipment at this facility.

If required, compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201.

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> emission limitation (0.11 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:

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions shall not exceed 0.62 ton per year from truck loading.

Applicable Compliance Method:

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

$$E = 621 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.62 \text{ ton/year}$$

where:

E = estimated emissions, in tons per year;

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

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

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>P011 - Grinder 2/1/2010</b> PLANT 1 DUST COLLECTORS.XLS GRINDER			
<b>Dust Collection Sizes and Reading</b>			
<b>For:</b>	<b>GRINDER</b>		
<b>EPA ID#</b>	<b>P1-244</b>		
<b>KMC Asset #</b>	<b>P1-13324</b>		
Feb-10	KraftMaid Design Velocity =	5400	
<b>CFM</b>			
Equipment:	Running Total for 5400v		
HF13 20HP 18.2 BHP 2233 RPM	<b>4968</b>	MAX CFM @ 5400v	<b>4241</b>
Fan inlet 13"	4968 Max CFM @ 5400v 10" SP		
Size of pipe in inches	Amount of CFM in pipe		
1	GRINDER	12	4241



3. P012, P1-13322

Operations, Property and/or Equipment Description:

Woodworking equipment venting to a 21,200 cfm baghouse, MASCO ID P1-13322

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.  PM <sub>10</sub> emissions shall not exceed 0.45 pound per hour and 1.99 tons per year 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 0.91 pound per hour and 3.98 tons per year from the baghouse stack.  Fugitive PE and PM <sub>10</sub> emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 2.90 tons per year from the dumpster.</p> <p>Visible emissions of fugitive dust from dumpster shall not exceed 10% opacity as a 3-minute average.</p>
c.	<p>OAC rule 3745-17-11(B) OAC rule 3745-17-07(A) OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)</p>	<p>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).</p>

(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 weekly 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 perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the area around the dumpster. 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 truck loading 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 0.91 pound per hour and 3.98 tons per year from the baghouse stack.

Applicable Compliance Method:

This limitation is based upon the design of the baghouse and compliance with the grain loading limitation. Compliance with the grain loading limitation has been demonstrated at similar, but larger, control equipment at this facility.

If required, compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(10).

The tpy emission limitation was developed by multiplying the short-term allowable PE emission 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.

c. Emission Limitation:

PM<sub>10</sub> emissions shall not exceed 0.45 pound per hour and 1.99 tons per year from the baghouse stack.

Applicable Compliance Method:

This limitation is based upon the design of the baghouse and compliance with the grain loading limitation. Compliance with the grain loading limitation has been demonstrated at similar, but larger, control equipment at this facility.

If required, compliance with the hourly limitation shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201.

The tpy emission limitation was developed by multiplying the short-term allowable PM<sub>10</sub> emission limitation (0.45 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:

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions shall not exceed 2.90 tons per year from the dumpster.

Applicable Compliance Method:

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

$$E = 2,902 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 2.90 \text{ tons/year}$$

where:

E = estimated emissions, in tons per year;

2,902 = the tons of sawdust anticipated to the dumpster per year; and

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

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.

**P012 - Cefla 1 2/1/2010 PLANT 1 DUST COLLECTORS.XLS CEFLA #1**

**Dust Collection Sizes and Reading**

<b>For:</b>		<b>CEFLA #1</b>	
<b>EPA ID#</b>		<b>P012</b>	
<b>KMC Asset #</b>		<b>P1-13322</b>	
Feb-10	KraftMaid Design Velocity =	4600	
CFM			
Equipment:		Running Total for 4600 V	
HF29 75HP 73 BHP 991 RPM Fan	21200	MAX CFM @ 4600	25917
inlet 29"			
21200 Max CFM @ 4600v 12" SP			
Size of pipe in inches		Amount of CFM in pipe	
1	DMC ROTO SAND UNIT P1-10 (PRIMER)	5	627
2	DMC ROTO SAND UNIT P1-10 (PRIMER)	8	1606
3	SORBINI BRUSH MACHINE	8	1606
4	SORBINI BRUSH MACHINE	8	1606
5	SORBINI BRUSH MACHINE	8	1606
6	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER) - VAC BLOWER	5	627
7	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER) - VAC BLOWER	5	627
8	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER)	6	903
9	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER)	6	903
10	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER)	6	903
11	BRUSH ASSEMBLY DENNIBER P1-03 (PRIMER)	6	903
12	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT) - VAC BLOWE	5	627
13	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT) - VAC BLOWE	5	627
14	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT)	6	903
15	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT)	6	903
16	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT)	6	903
17	BRUSH ASSEMBLY DENNIBER P1-14 (TOP COAT)	6	903
18	SORBINI BRUSH MACHINE	8	1606
19	SORBINI BRUSH MACHINE	8	1606
20	SORBINI BRUSH MACHINE	8	1606
21	DMC ROTO SAND UNIT (TOP COAT) - VAC BLOWER	6	903



22	DMC ROTO SAND UNIT (TOP COAT) - VAC BLOWER	6	903	23408
23	DMC ROTO SAND UNIT (TOP COAT)	6	903	24311
24	DMC ROTO SAND UNIT (TOP COAT)	8	1606	25917



4. Emissions Unit Group - P009 & P014: P009 and P014

EU ID	Operations, Property and/or Equipment Description
P009	Woodworking equipment venting to a 53,000 cfm baghouse, MASCO ID P1-13327
P014	Woodworking equipment venting to a 53,000 cfm baghouse, MASCO ID P1-24807

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) Woodworking equipment 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.  PM <sub>10</sub> emissions shall not exceed 1.14 pounds per hour and 4.95 tons per year 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 2.27 pounds per hour and 9.95 tons per year from the baghouse stack.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive PE and PM <sub>10</sub> emissions from emissions units P009, P010, P014 and P015, combined, shall not exceed 5.76 tons per year from the dumpster.  Visible emissions of fugitive dust from the dumpster 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 rule 3745-31-05(D)(1)(b).

(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 perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the area around the dumpster. 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 particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity as a 6-minute average.

Visible emissions of fugitive dust from truck loading 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 2.27 pounds per hour and 9.95 tons per year 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 (2.27 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:

PM<sub>10</sub> emissions shall not exceed 1.14 pounds per hour and 4.95 tons per year 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 PM<sub>10</sub> emission limitation (1.14 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 with the grain loading limitations 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).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from emissions units P009, P010, P014 and P015, combined, shall not exceed 5.76 tons per year from the dumpster.

Applicable Compliance Method:

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

$$E = 23,041 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 0.25 \times 1 \text{ ton}/2000 \text{ lbs} = 5.76 \text{ tons/year}$$

where:

E = estimated emissions, in tons per year;

23,041 = the tons of sawdust anticipated to be loaded into the dumpster 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 = the emission factor based upon the estimated 75% control efficiency for the three sided enclosure for loading trucks.

(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 the PM<sub>10</sub> emission limitation of 0.0025 grain 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.

P009 - Sanding 2/1/2010 PLANT 1 DUST COLLECTORS.XLS 2/1/2010 SANDING				
Dust Collection Sizes and Reading				
<b>For:</b>		<b>SANDING</b>		
<b>EPA ID#</b>		<b>P009</b>		
<b>KMC Asset #</b>		<b>P1-13327</b>		
Feb-10	KraftMaid Design Velocity =		5800	
CFM				
Equipment:		Running Total for 5800 V		
HF41 200HP 189 BHP 727 RPM	<b>53000</b>	MAX CFM @ 5800v		<b>44319</b>
Fan inlet 41"				
53000 Max CFM @ 5800v 11" SP				
Size of pipe in inches		Amount of CFM in pipe		
1	Edge Sander Left Side	4	506	506
2	Edge Sander Left Side	4	506	1012
3	Edge Sander Right Side	4	506	1518
4	Edge Sander Right Side	4	506	2025
5	Calibration Sander LSM 8 RR	10	3163	5188
6	Calibration Sander LSM 8 RR	10	3163	8351
7	Calibration Sander LSM 8 RR	6	1139	9490
8	Calibration Sander LSM 8	6	1139	10629



9	RR Calibration Sander LSM 8	7	1550	12179
10	RR Cefla Down Draft Router Table	8	2025	14204
11	Cefla Down Draft Router Table	8	2025	16228
12	Finish Sander LSM8 LL	8	2025	18253
13	Finish Sander LSM8 LL	8	2025	20277
14	Finish Sander LSM8 LL	6	1139	21416
15	Finish Sander LSM8 LL	5	791	22207
16	Finish Sander LSM8 LL	5	791	22998
17	Finish Sander LSM8 LL	6	1139	24137
18	Finish Sander LSM8 LL	7	1550	25687
19	Crossgrain Sander LSM8 OSR 3	6	1139	26825
20	Crossgrain Sander LSM8 OSR 3	6	1139	27964
21	Crossgrain Sander LSM8 OSR 3	6	1139	29103
22	Crossgrain Sander LSM8 OSR 3	6	1139	30242
23	Crossgrain Sander LSM8 OSR 3	6	1139	31381
24	Crossgrain Sander LSM8 OSR 3	7	1550	32931
25	Fladder	8	2025	34955
26	Fladder	8	2025	36980
27	Brush Machine EA 4	4	506	37486
28	Brush Machine EA 4	4	506	37992
29	Brush Machine EA 4	7	1550	39542
30	Brush Machine EA 4	6	1139	40681
31	Brush Machine EA 4	7	1550	42231
33	Whirlwind Sander	0	0	42231
37	ARMINIUS SANDER	4	506	42737
38	ARMINIUS SANDER	4	506	43243
39	ARMINIUS SANDER	4	506	43749
40	ARMINIUS SANDER	3	285	44034
41	ARMINIUS SANDER	3	285	44319

**P014 - Sanding (2) 2/1/2010** PLANT 1 DUST COLLECTORS.XLS 2/1/2010 SANDING

**Dust Collection Sizes and Reading**

<b>For:</b>	<b>SANDING</b>
<b>EPA ID#</b>	<b>P014</b>
<b>KMC Asset #</b>	<b>P1-24807</b>
Feb-10 CFM	KraftMaid Design Velocity = 5800
Equipment:	Running Total for 5800 V
HF41 200HP 189 BHP 727 RPM Fan inlet 41" 53000	MAX CFM @ 5800v 44952
53000 Max CFM @ 5800v 11" SP	
Size of pipe in inches	Amount of CFM in pipe
1	Calibration Sander LSM 8 RR 10 3163 3163
2	Calibration Sander LSM 8 RR 10 3163 6327
3	Calibration Sander LSM 8 RR 6 1139 7466
4	Calibration Sander LSM 8 RR 6 1139 8604
5	Calibration Sander LSM 8 RR 7 1550 10154
6	Cefla Down Draft Router Table 7 1550 11704
7	Cefla Down Draft Router Table 7 1550 13255
8	Finish Sander LSM8 LL 7 1550 14805
9	Finish Sander LSM8 LL 7 1550 16355



10	Finish Sander LSM8 LL	6	1139	17493
11	Finish Sander LSM8 LL	5	791	18284
12	Finish Sander LSM8 LL	5	791	19075
13	Finish Sander LSM8 LL	6	1139	20214
14	Finish Sander LSM8 LL	7	1550	21764
15	Crossgrain Sander LSM8 OSR 3	6	1139	22903
16	Crossgrain Sander LSM8 OSR 3	6	1139	24042
17	Crossgrain Sander LSM8 OSR 3	6	1139	25180
18	Crossgrain Sander LSM8 OSR 3	6	1139	26319
19	Crossgrain Sander LSM8 OSR 3	6	1139	27458
20	Crossgrain Sander LSM8 OSR 3	7	1550	29008
21	Fladder	8	2025	31033
22	Fladder	8	2025	33057
23	Brush Machine EA 8	6	1139	34196
24	Brush Machine EA 8	6	1139	35335
25	Brush Machine EA 8	6	1139	36474
26	Brush Machine EA 8	6	1139	37613
27	Brush Machine EA 8	6	1139	38751
28	Homag line (sanding) - left side	4	506	39258
29	Homag line (sanding) - left side	4	506	39764
30	Homag line (sanding) - left side	4	506	40270
31	Homag line (sanding) - right side	4	506	40776
32	Homag line (sanding) - right side	4	506	41282
33	Homag line (sanding) - right side	4	506	41788
34	Homag line (sanding) - right side	4	506	42294
35	Homag line (sanding) - right side	4	506	42800
36	Homag line (sanding) - left side	4	506	43307
37	Homag line (sanding) - left side	4	506	43813
38	Downdraft Table	6	1139	44952



5. Emissions Unit Group - P010 and P015: P010 and P015

Table with 2 columns: EU ID, Operations, Property and/or Equipment Description. Rows include P010 and P015 descriptions.

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 and b describe OAC rules and their corresponding emission limits.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive PE and PM <sub>10</sub> emissions from emissions units P009, P010, P014 and P015, combined, shall not exceed 5.76 tons per year from the dumpster.  Visible emissions of fugitive dust from the dumpster 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 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 truck loading 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:

PM<sub>10</sub> emissions shall not exceed 0.67 pound per hour and 2.92 tons per year 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 PM<sub>10</sub> emission 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.

c. Emission Limitation:

PE shall not exceed 1.34 pounds per hour and 5.85 tons per year 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.

d. Emission Limitation:

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

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

Applicable Compliance Method:

Compliance with the grain loading limitations 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).

e. Emission Limitation:

Fugitive PE and PM<sub>10</sub> emissions from emissions units P009, P010, P014 and P015, combined, shall not exceed 5.76 tons per year from the dumpster.

Applicable Compliance Method:

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

$$E = 23,041 \text{ tons dust/year} \times 2 \text{ lbs/ton} \times 0.25 \times 1 \text{ ton}/2000 \text{ lbs} = 5.76 \text{ tons/year}$$

where:

E = estimated emissions, in tons per year;

23,041 = the tons of sawdust anticipated to be loaded into the dumpster 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 = the emission factor based upon the estimated 75% control efficiency for the three sided enclosure for the dumpster.

(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 2011. 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 the PM<sub>10</sub> emission limitation of 0.0025 grain 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.

P010 - Cefla 2 2/1/2010 PLANT 1 DUST COLLECTORS.XLS CEFLA #2				
Dust Collection Sizes and Reading				
For:		CEFLA #2		
EPA ID#		P1-242		
KMC Asset #		P1-13326		
Feb-10		KraftMaid Design Velocity = 5200		
CFM		Running Total for 5200 V		
Equipment:		MAX CFM @ 5200v		
HF33 100HP 91.4 BHP 825 RPM	31150			28588
Fan inlet 33"		31150 Max CFM @ 5200v 9" SP		
Size of pipe in inches		Amount of CFM in pipe		
1	DMC ROTO SANDER UNIT	8	1815	1815
2	DMC ROTO SANDER UNIT	8	1815	3630
3	SORBINI BRUSH MACHINE	6	1021	4651
4	SORBINI BRUSH MACHINE	6	1021	5672
5	SORBINI BRUSH MACHINE	6	1021	6693
6	CEFLA #2 BRUSH SYSTEM (PRIMER) - VAC BLOWER	5	709	7402
7	CEFLA #2 BRUSH	5	709	8111



	SYSTEM (PRIMER) - VAC BLOWER			
8	CEFLA #2 BRUSH SYSTEM (PRIMER)	6	1021	9132
9	CEFLA #2 BRUSH SYSTEM (PRIMER)	6	1021	10153
10	CEFLA #2 BRUSH SYSTEM (PRIMER)	6	1021	11174
11	CEFLA #2 BRUSH SYSTEM (PRIMER)	6	1021	12195
12	DOWNDRAFT CONVEYOR	8	1815	14010
13	CEFLA #2 BRUSH SYSTEM (TOP COAT) - VAC BLOWE	5	709	14720
14	CEFLA #2 BRUSH SYSTEM (TOP COAT) - VAC BLOWE	5	709	15429
15	CEFLA #2 BRUSH SYSTEM (TOP COAT)	6	1021	16450
16	CEFLA #2 BRUSH SYSTEM (TOP COAT)	6	1021	17471
17	CEFLA #2 BRUSH SYSTEM (TOP COAT)	6	1021	18492
18	CEFLA #2 BRUSH SYSTEM (TOP COAT)	6	1021	19513
19	SORBINI BRUSH MACHINE	8	1815	21328
20	SORBINI BRUSH MACHINE	8	1815	23143
21	SORBINI BRUSH MACHINE	8	1815	24958
22	DMC ROTO SANDER UNIT	8	1815	26773
23	DMC ROTO SANDER UNIT	8	1815	28588
24	DOWNDRAFT CONVEYOR	8	1815	30403

**P015 - Framing 2/1/2010 PLANT 1 DUST COLLECTORS.XLS ROUTERS, SANDERS**

**Dust Collection Sizes and Reading**

<b>For:</b>		<b>ROUTERS AND Saws</b>		
<b>EPA ID#</b>		<b>P015</b>		
<b>KMC Asset #</b>		<b>P1-13323</b>		
Feb-10	KraftMaid Design Velocity =	5200		
CFM				
Equipment:		Running Total for 5200 V		
HF33 100HP 91.4 BHP 825 RPM	<b>31150</b>	0 MAX CFM @ 5200	<b>19342</b>	
Fan inlet 33"				
31150 Max CFM @ 5200v 9" SP				
Size of pipe in inches		Amount of CFM in pipe		
1	Router - 4 Head Heain (slide gate-closed when off)	4	454	454
2	Router - 4 Head Heain (slide gate-closed when off)	4	454	908
3	Router - 4 Head Heain (slide gate-closed when off)	4	454	1361
4	Router - 4 Head Heain (slide gate-closed when off)	5	709	2070



5	Router - 4 Head Heain (slide gate-closed when off)	5	709	2779
6	Router - 4 Head Heain (slide gate-closed when off)	5	709	3488
7	Router - 4 Head Heain (slide gate-closed when off)	5	709	4197
8	Router- single head Heian	4	454	4651
9	Router- single head Heian	5	709	5360
10	UNISAW P1-75	5	709	6069
11	Flute cutting machine	6	1021	7090
12	Shaper	5	709	7799
13	Koch Borer	5	709	8508
14	Koch Borer	5	709	9217
15	Koch Borer	5	709	9926
16	Koch Borer	5	709	10635
17	NORTHFIELD RADIAL ARM SAW	4	454	11089
22	DATO SAW P1-092	5	709	11798
23	Power Matic Table Saw	5	709	12507
24	Whirlwind Saw	4	454	12961
25	Kreg Single Spindle Pocket Borer	4	454	13415
26	Kreg Single Spindle Pocket Borer	0	0	13415
27	Evan Double Spindle Borer	4	454	13869
28	Power Matic Table Saw	5	709	14578
29	Table Saw	0	0	14578
30	Koch Borer	3	255	14833
31	Koch Borer	3	255	15088
32	Koch Borer	3	255	15343
33	Koch Borer	3	255	15599
34	Koch Borer	3	255	15854
35	Koch Borer	3	255	16109
36	Koch Borer	3	255	16364
37	Koch Borer	3	255	16620
38	Koch Borer	4	454	17074
39	Koch Borer	4	454	17527
40	Weeke BHC 360	8	1815	19342