

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

1/7/2014

Certified Mail

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

Robert Naftanail
MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
15535 South State Ave.
P.O. Box 1055
Middlefield, OH 44062

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0228000213
Permit Number: P0116049
Permit Type: Administrative Modification
County: Geauga

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for**

MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)

Facility ID:	0228000213
Permit Number:	P0116049
Permit Type:	Administrative Modification
Issued:	1/7/2014
Effective:	1/7/2014
Expiration:	12/23/2018



Division of Air Pollution Control
Permit-to-Install and Operate
for
MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)

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Authorization

Facility ID: 0228000213
Application Number(s): M0002537
Permit Number: P0116049
Permit Description: Administrative Modification of FEPTIO P0115863 for extension of expiration date to 5-year.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 1/7/2014
Effective Date: 1/7/2014
Expiration Date: 12/23/2018
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
15535 S STATE AVE
MIDDLEFIELD, OH 44062

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

Ohio Environmental Protection Agency (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: P0116049

Permit Description: Administrative Modification of FEPTIO P0115863 for extension of expiration date to 5-year.

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

Emissions Unit ID:	F002
Company Equipment ID:	P2-10908
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F003
Company Equipment ID:	P2-10910
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F004
Company Equipment ID:	Sawdust Storage Silo
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable

Group Name: Woodworking Group A

Emissions Unit ID:	P011
Company Equipment ID:	P2-10909
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P015
Company Equipment ID:	P2-10912
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable

Group Name: Woodworking Group B

Emissions Unit ID:	P006
Company Equipment ID:	P2-10916
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	P2-10911
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	P2-21588
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	P2-10904
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable



Emissions Unit ID:	P012
Company Equipment ID:	P2-10903
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P014
Company Equipment ID:	P2-10905
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	P2-10918
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P020
Company Equipment ID:	P2-10915
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	P2-10917
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable

Group Name: Woodworking Group C

Emissions Unit ID:	P013
Company Equipment ID:	P2-10914
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable

Group Name: Woodworking with No Group

Emissions Unit ID:	P009
Company Equipment ID:	P2-10906
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P017
Company Equipment ID:	P2-10921
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P018
Company Equipment ID:	P2-10907
Superseded Permit Number:	P0115863
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
Permit Number: P0116049
Facility ID: 0228000213
Effective Date: 1/7/2014

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 of this permit 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 [DO/LAA] 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 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 emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



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

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

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

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



Final Permit-to-Install and Operate
MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
Permit Number: P0116049
Facility ID: 0228000213
Effective Date: 1/7/2014

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.
2. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



Final Permit-to-Install and Operate
MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
Permit Number: P0116049
Facility ID: 0228000213
Effective Date: 1/7/2014

C. Emissions Unit Terms and Conditions



1. F002, P2-10908

Operations, Property and/or Equipment Description:

11,500 cfm Paper Bailer with product collector cyclone, P2-10908

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, f)(1)a, and f)(2)b.

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)	Particulate matter less than 10 microns (PM ₁₀) from the product collector cyclone shall not exceed 5.0 tons per year. Visible particulate emissions of fugitive dust from the cyclone shall not exceed 10% opacity as a 3-minute average.
b.	OAC rule 3745-31-05 (A)(3)	Particulate emissions (PE) from the product collector cyclone shall not exceed 5.0 tons per year. See section b)(2)a.
c.	OAC rule 3745-17-07 (B) OAC rule 3745-17-08 (B)	The requirements established pursuant to OAC rules 3745-17-08 (B) and 3745-17-07 (B) are less stringent than the requirements established pursuant to OAC rules 3745-31-05 (A)(3) and 3745-31-05 (D).



- (2) Additional Terms and Conditions
 - a. The emissions from this emissions unit shall be vented to a cyclone (P2-10908) at all times when this emissions unit is in operation.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

- (2) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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



e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (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 egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive dust 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.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Opacity Limitation:

Visible emissions of fugitive dust from the cyclone 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 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

PE/PM₁₀ from the product collector cyclone shall not exceed 5.0 tons per year.

Applicable Compliance Method:

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

$$E = 100 \text{ tons per year} \times 0.05$$

where:

E = emissions in tons per year PE and PM₁₀;

100 tons per year = the maximum anticipated throughput; and

0.05 = the estimated factor for uncollected particles from the bailer. The paper to be bailed is all large chunks with no small paper particles into the bailer.



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 permit exempt equipment installed during the last calendar year and an identification of all equipment permanently shut down and dismantled. This report shall be submitted to the Director (the Ohio EPA, Northeast District Office) by February 28 of each year or may be included in the PER.

TABLE FOR EMISSIONS UNIT F002 AT PLANT 2
 EPA Label = P2-10908 Date 1/2009

Equipment	CFM in pipe
Brush Cleaner	2673
Brush Cleaner	962
Brush Cleaner	962
Brush Cleaner	962
Floor Sweep	1710



2. F003, P2-10910

Operations, Property and/or Equipment Description:

Grinder controlled by a dust collector system, consisting of a cyclone followed by a baghouse, P2-10910 and Grinder baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 3.07 tons per year from the exhaust of grinder baghouse. Particulate emissions (PE) shall not exceed 3.07 tons per year from the exhaust of grinder baghouse. See section b)(2)a.
b.	OAC rule 3745-17- 07 (A)	Visible particulate emissions from the exhaust of grinder baghouse shall not exceed 20% opacity as a 6-minute average.
c.	OAC rule 3745-17- 11	See sections b)(2)b and b)(2)c.



(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to a dust collector system, which consists of a cyclone (P2-10910) followed by a baghouse (Grinder baghouse) at all times when this emissions unit is in operation.
- b. The uncontrolled emission rate for this emissions unit is not ascertained, and therefore, in accordance with OAC rule 3745-17-11 (A)(2)(a), Figure II of OAC rule 3745-17-11 is not applicable to this emissions unit.
- c. The process weight rate for this emissions unit is not ascertained, and therefore, in accordance with OAC rule 3745-17-11 (A)(2)(b), Table I of OAC rule 3745-17-11 is not applicable to this emissions unit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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



- (2) Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (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 egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive dust 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.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitation:

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

Applicable Compliance Method:

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

PE/PM₁₀ emissions shall not exceed 3.07 tons per year.



Applicable Compliance Method:

This limitation is based upon the design of the baghouses and compliance with the grain loading limitation and maximum annual hours of operation (8,760 hours per year). Compliance with grain loading limitation has been demonstrated at similar, but larger, control equipment at MASCO Plant 1, Plant 2, or Plant 3.

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE.

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 permit 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.



Final Permit-to-Install and Operate
 MASCO Cabinetry Middlefield LLC (KraftMaid Plant 2)
Permit Number: P0116049
Facility ID: 0228000213
Effective Date: 1/7/2014

F003 - grinder PLANT 2 DUST COLLECTORS.XLS GRINDER Dust Collection Sizes and Reading			
For:		LARGE WOOD GRINDER	
EPA ID#		F003	
KMC Asset #		P2-10910	
DUST COLLECTOR #8			
Date: 5/2006	KraftMaid Design Velocity =	5000	
Fan Motor FLA	39		
As of 8/2/07	Fan Motor Amps	45	
Motor running	115% Loaded	CFM Running Total	
Equipment 30 HP 28.5 BHP 1665 RPM Fan inlet 17"	7900	MAX CFM @ 5000v	9217
7900 Max CFM @ 5000 v 10" SP			
Size of pipe in inches	Amount of CFM in pipe		
GRINDER COLLECTOR			
GRINDER COLLECTOR	17	7881	7881
P2-267 DUST COLLECTOR	7	1336	9217



3. F004, Sawdust Storage Silo

Operations, Property and/or Equipment Description:

Storage Silo with an 1,680 cfm return air baghouse, P2-10913, and truck loading with a 12,500 cfmbaghouse, P2-10920.

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, f)(1)a, and f)(1)b.

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)	<p>Emissions of particulate matter less than 10 microns (PM₁₀) shall not exceed 0.0025 grain per dscf from each baghouse stack.</p> <p>PM₁₀ emissions from loading sawdust into the storage silo (1,680 cfmbaghouse) shall not exceed 0.04 pound per hour and 0.16 ton per year from the baghouse P2-10913 exhaust.</p> <p>PM₁₀ emissions from loading sawdust into trucks from the storage silo (12,500 cfmbaghouse) shall not exceed 0.27 pound per hour and 1.17 tons per year from the baghouse P2-10920 exhaust.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Visible particulate emissions from each baghouse stack shall not exceed 0% opacity as a 6-minute average.
b.	OAC rule 3745-31-05 (A)(3)	<p>Particulate emissions (PE) shall not exceed 0.005 grain per dscf from each baghouse stack.</p> <p>PE from loading sawdust into the storage silo (1,680 cfmbaghouse) shall not exceed 0.07 pound per year and 0.32 ton per year from the baghouse P2-10913 exhaust.</p> <p>PE from loading sawdust into trucks from the storage silo (12,500 cfmbaghouse) shall not exceed 0.54 pound per hour and 2.35 tons per year from the baghouse P2-10920 exhaust.</p> <p>Fugitive PE and PM₁₀ emissions from loading sawdust into trucks from the storage silo shall not exceed 6.32 tons per year.</p> <p>Visible emissions of fugitive dust from loading sawdust into trucks from the storage silo shall not exceed 10% opacity as a 3-minute average.</p> <p>See section b)(2)a.</p>
c.	OAC rule 3745-17-07 (A) OAC rule 3745-17-07 (B) OAC rule 3745-17-08 (B) OAC rule 3745-17-11	The requirements established pursuant to OAC rules 3745-17-11, 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 (A)(3) and 3745-31-05 (D).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vent to the dust collector system, which consists of a 1,680 cfmbaghouse (P2-10913) for storage silo and a 12,500 cfmbaghouse (P2-10920) for truck loading, at all times when this emissions unit is in operation.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across each baghouse (P2-10913 and P2-10920) is between 1 to 5 inches of water. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across each baghouse on weekly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across each baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving this emissions unit and visible emissions of fugitive dust from loading sawdust into truck. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to minimize or 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 the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from each stack serving this emissions unit and/or any visible emissions of fugitive dust were observed from truck loading area; and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive dust 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) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of each baghouse during the 12-month reporting period for this emissions unit:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" (above) where a prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitations:

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

Applicable Compliance Method:

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



b. Emission Limitations:

PM₁₀ shall not exceed 0.0025 grain per dscf from each baghouse stack.

PM₁₀ emissions from loading sawdust into the storage silo shall not exceed 0.04 lb/hr and 0.16 tpy from the baghouse P2-10913 exhaust.

PM₁₀ emissions from loading sawdust into trucks from the storage silo shall not exceed 0.27 lb/hr and 1.17 tpy from the baghouse P2-10920 exhaust.

Applicable Compliance Method:

These limitations are based upon the design of the baghouses and compliance with the grain loading limitation. Compliance with grain loading limitation has been demonstrated at similar, but larger, control equipment at MASCO Plant 1, Plant 2, or Plant 3.

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 for PM₁₀.

The tons per year emission limitations were developed by multiplying the short-term allowable PM₁₀ limitations (as appropriate) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitations, compliance shall also be shown with the annual emission limitations.

c. Opacity Limitations:

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

Applicable Compliance Method:

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

d. Emission Limitations:

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

PE from loading sawdust into the storage silo shall not exceed 0.07 lb/hr and 0.32 tpy from the baghouse P2-10913 exhaust.

PE from loading sawdust into trucks from the storage silo shall not exceed 0.54 lb/hr and 2.35 tpy from the baghouse P2-10920 exhaust.



Applicable Compliance Method:

These limitations are based upon the design of the baghouses and compliance with the grain loading limitation. Compliance with grain loading limitation has been demonstrated at similar, but larger, control equipment at MASCO Plant 1, Plant 2, or Plant 3.

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE.

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

e. Emission Limitation:

Fugitive PE and PM-10 emissions from loading sawdust into trucks from the storage silo shall not exceed 6.32 tons per year.

Applicable Compliance Method:

Compliance shall be determined as follows:

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

where:

E = annual emissions, in tons;

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

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

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

g) Miscellaneous Requirements

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



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

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

TABLE FOR EMISSIONS UNIT F004 AT PLANT 2
EPA Label = P2-10913 Date 1/2009

Equipment	CFM in pipe
Storage Silo P2-10913	1680
Truck Loading P2-10920	12500



4. Emissions Unit Group -Woodworking Group A: P011 and P015

EU ID	Operations, Property and/or Equipment Description
P011	Woodworking equipment with a 31,150 cfmbaghouse, P2-10909.
P015	Woodworking equipment with a 31,150 cfmbaghouse, P2-10912.

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, f)(1)a, f)(1)b, and f)(2).

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)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack. PM ₁₀ emissions shall not exceed 0.67 pound per hour and 2.92 tons per year. Visible particulate emissions from the baghouse shall not exceed 0% opacity as a 6-minute average.
b.	OAC rule 3745-31-05 (A)(3)	Particulate emissions (PE) shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack. PE shall not exceed 1.34 pounds per hour and 5.85 tons per year. See section b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11 OAC rule 3745-17-07 (A)	The requirements established pursuant to OAC rules 3745-17-11 and 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rules 3745-31-05 (D) and OAC rule 3745-31-05 (A)(3).

(2) Additional Terms and Conditions

- a. The emissions from emissions unit P011 shall be vented to the baghouse P2-10909 at all times when the emissions unit is in operation. The emissions from emissions unit P015 shall be vented to the baghouse P2-10912 at all times when the emissions unit is in operation.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across each baghouse (P2-10909 and P2-10912) is between 1 to 5 inches of water. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across each baghouse on weekly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.



In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across each baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving these emissions units. 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 emissions 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 the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and



- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving these emissions units 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" (above) where a prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitation:
Visible PE from the baghouse shall not exceed 0% opacity as a 6-minute average.



Applicable Compliance Method:

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

b. Emission Limitation:

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

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 tons per year emission limitation was developed by multiplying the short-term allowable PE limitation (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:

PM₁₀ emissions shall not exceed 0.67 pound per hour and 2.92 tons per year.

Applicable Compliance Method:

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

The tons per year emission limitation was developed by multiplying the short-term allowable PM₁₀ emission limitation (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 PM₁₀ shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

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

Applicable Compliance Method:

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



Appendix A, Methods 1 through 5 for PE and 40 CFR Part 51, Appendix M, Method 201 for PM₁₀ and the requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for these emissions units 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 (Group A). These units are listed below. This list of emissions units may change over time as units are installed, modified, or removed from these 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

P003 (P3-12742) – 34,750 cfm
P004 (P3-12743) – 31,150 cfm

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

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

The emissions unit P015 in Plant 1 was tested and demonstrated compliance on May 10, 2012. The emission testing for this group of emissions units shall be conducted again within 6 months of May 10, 2017.

b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM₁₀ per dscf from the baghouse stack and with the PE and PM₁₀ 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 PM₁₀ - 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.

P011 - dodds uv2 PLANT 2 DUST COLLECTORS.XLS DODDS MACHINES AND UV#2 Dust Collection Sizes and Reading					
For:		DODDS MACHINES AND UV#2			
EPA ID#		P011			
KMC Asset #		P2-10909			
DUST COLLECTOR #7					
Date: 9/2006		KraftMaid Design Velocity =		5200	
Fan Motor FLA		Fan Motor Amps		118	
As Of 02/02/09		Fan Motor Amps		110	
Motor running	93%	Loaded	CFM Running Total		
Equipment 100 HP 91.4 BHP 825 RPM Fan inlet 33"	31,150	MAX CFM @ 5200v	32133		
31150 Max CFM @ 5200v 9" SP					
SIZE OF PIPE IN INCHES		AMOUNT OF CFM IN PIPE			
UV #2					
1	TIMESAVERS SANDER (1)	6	UV-2	1021	1021
2	TIMESAVERS SANDER (1)	7	UV-2	1390	2411
3	TIMESAVERS SANDER (1)	7	UV-2	1390	3800
4	TIMESAVERS SANDER (1)	8	UV-2	1815	5616
5	TIMESAVERS SANDER (1)	8	UV-2	1815	7431
6	TIMESAVERS SANDER (1)	8	UV-2	1815	9246
7	TIMESAVERS SANDER (2)	10	UV-2	2836	12082
8	TIMESAVERS SANDER (2)	8	UV-2	1815	13897
9	TIMESAVERS SANDER (2)	7	UV-2	1390	15287
10	TIMESAVERS SANDER (2)	6	UV-2	1021	16308
11	SORBINI EDGE COATER	5	UV-2	709	17017
12	SORBINI EDGE COATER	5	UV-2	709	17726
13	SORBINI EDGE COATER	4	UV-2	454	18180
14	SORBINI EDGE COATER	4	UV-2	454	18633
15	SORBINI EDGE COATER	4	UV-2	454	19087
16	SORBINI EDGE COATER	4	UV-2	454	19541
17	NOTCHER	4	DODDS	454	19995
18	NOTCHER	6	DODDS	1021	21016
19	DODDS DOVETAIL P2-501	6	DODDS	1021	22037
20	DODDS DOVETAIL P2-501	6	DODDS	1021	23058
21	DODDS DOVETAIL P2-915	6	DODDS	1021	24079
22	DODDS DOVETAIL P2-915	6	DODDS	1021	25100
23	DODDS DOVETAIL P2-500	6	DODDS	1021	26121
24	DODDS DOVETAIL P2-500	6	DODDS	1021	27142
25	DODDS DOVETAIL P2-973	6	DODDS	1021	28163



DODDS DOVETAIL P2-973		DODDS	1021	29184
DODDS SIDE MACHINE #54		DODDS	454	29638
DODDS SIDE MACHINE #54	4	DODDS	454	30091
DODDS DE-790 CNC SER # DO6012-164	6	DODDS	1021	31112
DODDS DE-790 CNC SER # DO6012-165	6	DODDS	1021	32133

P015 - uv1 PLANT 2 DUST COLLECTORS.XLS UV#1 Dust Collection Sizes and Reading					
For:		UV #1			
EPA ID#		P015			
KMC Asset #		P2-10912			
DUST COLLECTOR #10					
Date: 5/2006		KraftMaid Design Velocity = 5200			
Fan Motor FLA		118			
As Of 8/2/07		Fan Motor Amps		90	
Motor running	76%	Loaded	CFM Total	Running	
Equipment 100 HP 91.4 BHP 825 RPM Fan inlet 33"		31150	MAX CFM @ 5200v	25156	
31150 Max CFM @ 4800v 9" SP					
SIZE OF PIPE IN INCHES			Amount of CFM in pipe		
UV #1					
1	HEESMANN SANDER LSM 8	6	UV	1021	1021
2	HEESMANN SANDER LSM 8	6	UV	1021	2042
3	HEESMANN SANDER LSM 8	6	UV	1021	3063
4	HEESMANN SANDER LSM 8	7	UV	1390	4453
5	HEESMANN SANDER LSM 8	7	UV	1390	5842
6	HEESMANN SANDER LSM 8	7	UV	1390	7232
7	HEESMANN SANDER LSM 8	7	UV	1390	8622
8	HEESMANN SANDER LSM 8	7	UV	1390	10012
9	HEESMANN SANDER LSM 8	7	UV	1390	11401
10	HEESMANN SANDER LSM 8	9	UV	2297	13699
11	HEESMANN SANDER LSM 8 (2)	6	UV	1021	14720
12	HEESMANN SANDER LSM 8 (2)	6	UV	1021	15741
13	HEESMANN SANDER LSM 8 (2)	6	UV	1021	16762
14	HEESMANN SANDER LSM 8 (2)	6	UV	1021	17783
15	HEESMANN SANDER LSM 8 (2)	7	UV	1390	19172
16	HEESMANN SANDER LSM 8 (2)	7	UV	1390	20562
17	HEESMANN SANDER LSM 8 (2)	7	UV	1390	21952
18	HEESMANN SANDER LSM 8 (2)	7	UV	1390	23341
19	HEESMANN SANDER LSM 8 (2)	8	UV	1815	25156



5. Emissions Unit Group - Woodworking Group B: P006, P007, P008, P010, P012, P014, P019, P020, and P021

EU ID	Operations, Property and/or Equipment Description
P006	Woodworking equipment with a 39,400 cfmbaghouse, P2-10916
P007	Woodworking equipment with a 39,400 cfmbaghouse P2-10911
P008	Woodworking equipment with a 39,400 cfmbaghouse, P2-21588.
P010	Woodworking equipment with a 36,342 cfmbaghouse, P2-10904.
P012	Woodworking equipment with a 36,342 cfmbaghouse, P2-10903.
P014	Woodworking equipment with a 39,400 cfmbaghouse, P2-10905.
P019	Solid surface fabricating equipment with a 39,400 cfmbaghouse, P2-10918.
P020	Woodworking equipment with a 39,400 cfmbaghouse, P2-10915.
P021	Woodworking equipment with a 39,400 cfmbaghouse, P2-10917.

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)(2)a, b)(2)b, f)(1)a, f)(1)b, and f)(2).

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)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack. See sections b)(2)a and b)(2)b below.
b.	OAC rule 3745-31-05 (A)(3)	Particulate emissions (PE) shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack. See sections b)(2)c and b)(2)d below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11 OAC rule 3745-17-07 (A)	The requirements established pursuant to OAC rules 3745-17-11 and 3745-17-07 (A), are less stringent than the requirements established pursuant to OAC rules 3745-31-05 (D) and 3745-31-05 (A)(3).

(2) Additional Terms and Conditions

- a. Emissions of PM₁₀ from the baghouse stack associated with the emissions unit shall not exceed the following:
 - i. For each emissions unit P006, P007, P008, P014, P019, P020, or P021, 0.84 pound per hour and 3.70 tons per year; and
 - ii. For each emissions unit P010 or P012, 0.78 pound per hour and 3.41 tons per year.
- b. Visible particulate emissions from each baghouse stack shall not exceed 0% opacity as a 6-minute average.
- c. PE from the baghouse stack associated with the emissions unit shall not exceed the following:
 - i. For emissions unit P006, P007, P008, P014, P019, P020, or P021, 1.69 pounds per hour and 7.40 tons per year; and
 - ii. For each emissions unit P010 or P012, 1.56 pounds per hour and 6.82 tons per year.
- d. The emissions from each emissions unit shall be vented to the associated baghouse as follows at all times when the emissions unit is in operation.
 - i. P2-10916 for emissions unit P006;
 - ii. P2-10911 for emissions unit P007;
 - iii. P2-21588 for emissions unit P008;
 - iv. P2-10904 for emissions unit P010;
 - v. P2-10903 for emissions unit P012;
 - vi. P2-10905 for emissions unit P014;
 - vii. P2-10918 for emissions unit P019;



- viii. P2-10915 for emissions unit P020; and
 - ix. P2-10917 for emissions unit P021.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across each baghouse (P2-10916, P2-10911, P2-21588, P2-10904, P2-10903, P2-10905, P2-10918, P2-10915, and P2-10917) is between 1 to 5 inches of water. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.
 - (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across each baghouse on weekly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;



- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across each baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving these emissions units. 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 emissions 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 the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this



permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving these emissions units 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" (above) where a prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitation:

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

Applicable Compliance Method:

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



b. Emission Limitation:

Emissions of PM₁₀ shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

Emissions of PM₁₀ from the baghouse stack associated with the emissions unit shall not exceed the following:

- i. For each emissions unit P006, P007, P008, P014, P019, P020, or P021, 0.84 pound per hour and 3.70 tons per year; and
- ii. For each emissions unit P010 or P012, 0.78 pound per hour and 3.41 tons per year.

Applicable Compliance Method:

Compliance with the grain loading and hourly limitations shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 for PM₁₀ and the requirements specified in f)(2).

The tons per year emission limitations were developed by multiplying the short-term allowable PM₁₀ limitation (lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 pounds 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 0.005 grain per dscf of exhaust gases from the baghouse stack.

PE from the baghouse stack associated with the emissions unit shall not exceed the following:

- i. For emissions unit P006, P007, P008, P014, P019, P020, or P021, 1.69 pounds per hour and 7.40 tons per year; and
- ii. For each emissions unit P010 or P012, 1.56 pounds per hour and 6.82 tons per year.

Applicable Compliance Method:

Compliance with the grain loading and hourly limitations shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE and the requirements specified in f)(2).

The tons per year emission limitations were developed by multiplying the short-term allowable PE limitation (lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if



compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

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

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

Plant 1

None

Plant 2

- P006 (P2-10916) – 39,400 cfm
- P007 (P2-10911) – 39,400 cfm
- P008 (P2-21588) – 39,400 cfm
- P010 (P2-10904) – 36,432 cfm
- P012 (P2-10903) – 36,432 cfm
- P014 (P2-10905) – 39,400 cfm
- P019 (P2-10918) – 39,400 cfm
- P020 (P2-10915) – 39,400 cfm
- P021 (P2-10917) – 39,400 cfm

Plant 3

P001 (P3-20865) – 36,432 cfm

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

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

The emissions unit P012 in Plant 2 was tested and demonstrated compliance on November 13, 2012. The emission testing for this group of emissions units shall be conducted again within 6 months of November 13, 2017.

c. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM₁₀ per dscf from the



baghouse stack and with the PE and PM₁₀ hourly mass emission limitations specified in b)(2).

- d. 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 PM₁₀ - 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.

- e. 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.
- f. 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).
- g. 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.
- h. 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.

P006 - uv3 PLANT 2 DUST COLLECTORS.XLS UV# 3 Dust Collection Sizes and Reading For: UV#3 / KAAT MINI MILL EPA ID# P006 KMC Asset # P2-10916					
DUST COLLECTOR #14					
Date: 5/2006		KraftMaid Design Velocity =		5200	
Fan Motor FLA		171			
As Of 8/2/07		Fan Motor Amps		128	
Motor running		75%		Loaded	
		39400		MAX CFM @ 4900v	
				34317	
Equipment Specifications:		HF 37 150 HP 142 BHP 801 RPM Fan inlet 37"		39400 Max CFM @ 5200v 12" SP	
		Size of pipe in inches		Amount of CFM in pipe	CFM Running Total
UV #3					
1	BRUSH CLEANER	8	UV-3	1815	1815
2	BRUSH CLEANER	8	UV-3	1815	3630
3	BRUSH CLEANER	8	UV-3	1815	5445
4	BRUSH CLEANER	8	UV-3	1815	7260
5	BRUSH CLEANER	10	UV-3	2836	10097
6	HEESEMANN LSM 8 (1)	5	UV-3	709	10806
7	HEESEMANN LSM 8 (1)	5	UV-3	709	11515
8	HEESEMANN LSM 8 (1)	6	UV-3	1021	12536
9	HEESEMANN LSM 8 (1)	6	UV-3	1021	13557
10	HEESEMANN LSM 8 (1)	6	UV-3	1021	14578
11	HEESEMANN LSM 8 (1)	7	UV-3	1390	15967
12	HEESEMANN LSM 8 (1)	7	UV-3	1390	17357
13	HEESEMANN LSM 8 (1)	7	UV-3	1390	18747
14	HEESEMANN LSM 8 (1)	8	UV-3	1815	20562
15	HEESEMANN LSM 8 (2)	6	UV-3	1021	21583
16	HEESEMANN LSM 8 (2)	5	UV-3	709	22292
17	HEESEMANN LSM 8 (2)	5	UV-3	709	23001
18	HEESEMANN LSM 8 (2)	6	UV-3	1021	24022
19	HEESEMANN LSM 8 (2)	6	UV-3	1021	25043
20	HEESEMANN LSM 8 (2)	6	UV-3	1021	26064
21	HEESEMANN LSM 8 (2)	7	UV-3	1390	27454
22	HEESEMANN LSM 8 (2)	7	UV-3	1390	28843
23	HEESEMANN LSM 8 (2)	7	UV-3	1390	30233
24	HEESEMANN LSM 8 (2)	8	UV-3	1815	32048



25	BP12	8	MINI MILL	1815	33863
26	TOE KICK NOTCHER	4	MINI MILL	454	34317

P007 - sp saws PLANT 2 DUST COLLECTORS.XLS SP SAWS					
Dust Collection Sizes and Reading					
For: SPECIAL PARTS					
EPA ID# P007					
KMC Asset # P2-10911					
DUST COLLECTOR #9					
Date: 9/2006		KraftMaid Design Velocity =		5200	
Fan Motor FLA		171			
As Of 8/2/07		Fan Motor Amps		130	
Motor running		76%		Loaded	
Equipment 150 HP 142 BHP 801 RPM Fan inlet 37"		39400		MAX CFM @ 5200v	
39400 Max CFM @ 5200v 12" SP				36813	
		Size of pipe in inches		Amount of CFM in pipe	CFM Running Total
MILLING					
1	HOLZMA #7	6	MILL	1021	1021
2	HOLZMA #7	8	MILL	1815	2836
5	HOLZMA #6	6	MILL	1021	3857
6	HOLZMA #6	8	MILL	1815	5672
7	ALTENDORF TABLE SAW	6	MILL	1021	6693
8	POWERMATIC SAW	5	MILL	709	7402
9	DODDS F&B DOVETAIL (OLD)	6	MILL	1021	8423
10	DODDS F&B DOVETAIL (OLD)	6	MILL	1021	9444
11	HOLZMA #5	6	MILL	1021	10465
12	HOLZMA #5	6	MILL	1021	11486
13	HOLZMA #5	8	MILL	1815	13301
14	ROUTER	4	MILL	454	13755
15	PIN ROUTER	4	MILL	454	14209
16	WEIMA GRINDER	10	MILL	2836	17045
17	MOUSE GROOVER	3	MILL	255	17300
18	MOUSE GROOVER	3	MILL	255	17556
19	MOUSE GROOVER	3	MILL	255	17811
20	MOUSE GROOVER	3	MILL	255	18066
21	NFL 26 21322	5	MILL	709	18775
22	NFL 26 21322	5	MILL	709	19484
23	NFL 26 21322	5	MILL	709	20193
24	NFL 26 21322	5	MILL	709	20902
25	NFL 26 21322	6	MILL	1021	21923
26	NFL 26 21322	6	MILL	1021	22944
27	NFL 26 21322	4	MILL	454	23398
28	NFL 26 21322	4	MILL	454	23852
29	NFL 26 21322	4	MILL	454	24306
30	NFL 26 21322	4	MILL	454	24759
31	HOLZMA #25	8	MILL	1815	26575
32	HOLZMA #25	6	MILL	1021	27596
33	BST 500 22192	6	MILL	1021	28617
34	BST 500 22192	6	MILL	1021	29638
35	TABLE SAW 243	4	MILL	454	30091
36	GROOVER P2-88	4	MILL	454	30545
36	NOTCHER	4	MILL	454	30999
37	NOTCHER	4	MILL	454	31453
38	NOTCHER	6	MILL	1021	32474
39	ALTENDORF TABLE SAW #776	5	MILL	709	33183
40	OPTIMAT BP-12	8	MILL	1815	34998
41	DODDS MANUAL MACHINE #54	4	MILL	454	35452
42	DODDS MANUAL MACHINE #54	4	MILL	454	35905
43	DODDS MANUAL MACHINE #55	4	MILL	454	36359
44	DODDS MANUAL MACHINE #55	4	MILL	454	36813



P008 - white door PLANT 2 DUST COLLECTORS.XLS WHITE DOOR Dust Collection Sizes and Reading For: WHITE DOOR CELL AND EURO EPA ID# P008 KMC Asset # P2-21588				
DUST COLLECTOR #21				
Date: 5/2006	KraftMaid Design Velocity =		5200	
Fan Motor FLA	171			
As Of 8/2/07	Fan Motor Amps		110	
Motor running	64%	Loaded	CFM Running Total	
Equipment 150 HP 142 BHP 801 RPM Fan inlet 37"	39400	0 MAX CFM @ 5200v		20137
39400 Max CFM @ 5200v 12" SP				
		Size of pipe in inches	Amount of CFM in pipe	CFM Running Total
1	WEIMA GRINDER	8	WHITE DOOR	1815
2	HOLZMA SAW HPP 22	8	WHITE DOOR	1815
3	HOLZMA SAW HPP 22	6	WHITE DOOR	1021
4	HOLZMA SAW HPP 22	6	WHITE DOOR	1021
5	ALTENDORF SAW	5	WHITE DOOR	709
6	ALTENDORF SAW	5	WHITE DOOR	709
7	HEAIN ROUTER #4	8	WHITE DOOR	1815
8	HEAIN ROUTER #5	8	WHITE DOOR	1815
9	BLUM MINI PRESS	4	WHITE DOOR	454
10	BHC 250	8	EURO	1815
11	BHC350	8	EURO	1815
12	BHC 350	6	EURO	1021
13	BHC 350	8	EURO	1815
14	BHC 350	6	EURO	1021
15	PRESS ROOM	6	WHITE DOOR	1021
16	HINGE PRESS	4	WHITE DOOR	454

P010 - shelfline PLANT 2 DUST COLLECTORS.XLS SHELF LINES Dust Collection Sizes and Reading For: FLOOR AND SHELF LINES EPA ID# P010 KMC Asset # P2-10904				
DUST COLLECTOR #2				
Date: 5/2006	KraftMaid Design Velocity =	4800		
Fan Motor FLA				
As Of 8/2/07	Fan Motor Amps			
Motor running	Loaded		CFM Running Total	
Equipment 125 HP 119.9 BHP 765 RPM Fan inlet 37"	36432	MAX CFM @ 4800v		43144
36432 Max CFM @ 4800v 11" SP				
		Size of pipe in inches	Amount of CFM in pipe	
WALL-END LINE				
WEIMA GRINDER	8	HM	1675	1675
BASE END LINE				
DET BASE LINE	6	HM	942	2618
DET BASE LINE	6	HM	942	3560
DET BASE LINE	10	HM	2618	6178
DET BASE LINE	10	HM	2618	8796
DET BASE LINE	5	HM	654	9451



DET BASE LINE	5	HM	654	10105
DET BASE LINE	10	HM	2618	12723
DET BASE LINE	10	HM	2618	15341
DET BASE LINE	11	HM	3168	18509
DET BASE LINE	11	HM	3168	21677
FLOOR LINE			0	21677
BRUSH	6	HM	942	22619
BRUSH	6	HM	942	23562
SINGLE-SIDED EDGE BANDER	5	HM	654	24216
SINGLE-SIDED EDGE BANDER	7	HM	1283	25499
SINGLE-SIDED EDGE BANDER	8	HM	1675	27174
SHELF LINE			0	27174
BRUSH	6	HM	942	28117
BRUSH	6	HM	942	29059
SINGLE-SIDED EDGE BANDER	5	HM	654	29714
SINGLE-SIDED EDGE BANDER	7	HM	1283	30997
SINGLE-SIDED EDGE BANDER	8	HM	1675	32672
HEAVY MILLING			0	32672
FLOOR AND CEILING NOTCHER	5	HM	654	33327
FLOOR AND CEILING NOTCHER	5	HM	654	33981
HOLZMA #4	5	HM	654	34636
HOLZMA #4	5	HM	654	35290
HOLZMA #4	8	HM	1675	36966
NFL 26 10464	5	HM	654	37620
NFL 26 10464	5	HM	654	38275
NFL 26 10464	5	HM	654	38929
NFL 26 10464	5	HM	654	39584
NFL 26 10464	6	HM	942	40526
NFL 26 10464	6	HM	942	41469
NFL 26 10464	4	HM	419	41887
NFL 26 10464	4	HM	419	42306
NFL 26 10464	4	HM	419	42725
NFL 26 10464	4	HM	419	43144

P012 - walline					
P2 Dust Master 2009 Annual Report 2/1/2010 1:52 PM P012 - walline					
Dust Collection Sizes and Reading					
For: WALL END LINE					
EPA ID# P012					
KMC Asset # P2-10903					
DUST COLLECTOR #1					
Date: 5/2006	KraftMaid Design Velocity =			4800	
Fan Motor FLA				145	
As Of 5/1/09	Fan Motor Amps			106	
Motor running	73%	Loaded	CFM Running Total		
Equipment 125 HP 119.9 BHP 765 RPM Fan inlet 37"	36432	MAX CFM @ 4800v	40945		
36432 Max CFM @ 4800v 11" SP					
	Size of pipe in inches			Amount of CFM in pipe	
BASE END LINE					
1	KOCH TOE NOTCH	3	HM	236	236
2	KOCH TOE NOTCH	3	HM	236	471
3	KOCH TOE NOTCH	3	HM	236	707
4	KOCH TOE NOTCH	3	HM	236	942
5	KOCH TOE NOTCH	5	HM	654	1597
6	BRUSH	6	HM	942	2539
7	BRUSH	6	HM	942	3482
8	WEEKE #819 BST 100	6	HM	942	4424
WALL END LINE	0			4424	
9	BRUSH	6	HM	942	5367
10	BRUSH	6	HM	942	6309
11	DET	9	HM	2121	8430
12	DET	9	HM	2121	10550



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13	WEEKE BST 100	6	HM	942	11493
14	EDGE BANDER	5	HM	654	12147
15	EDGE BANDER	5	HM	654	12802
16	EDGE BANDER	7	HM	1283	14085
17	EDGE BANDER	7	HM	1283	15367
18	EDGE BANDER	10	HM	2618	17985
19	EDGE BANDER	10	HM	2618	20603
20	DET	9	HM	2121	22724
21	DET	9	HM	2121	24845
HEAVY MILL		0		24845	
22	WEEKE BST 500	6	HM	942	25787
23	HOMAG 10/12 EDGE BANDER	5	HM	654	26441
24	HOMAG 10/12 EDGE BANDER	5	HM	654	27096
25	HOMAG 10/12 EDGE BANDER	4	HM	419	27515
26	HOMAG 10/12 EDGE BANDER	4	HM	419	27934
27	HOMAG 10/12 EDGE BANDER	3	HM	36	28169
28	OPTIMAT EDGE BANDER	5	HM	654	28824
29	OPTIMAT EDGE BANDER	5	HM	654	29478
30	OPTIMAT EDGE BANDER	10	HM	2618	32096
31	OPTIMAT EDGE BANDER	10	HM	2618	34714
32	BST 500 10475	6	HM	942	35657
33	BST 500 10475	6	HM	942	36599
34	BP-12	7	HM	1283	37882
35	NOTCHER	4	HM	419	38301
36	NOTCHER	4	HM	419	38720
37	BHC350	7	HM	1283	40003
38	WEIMA GRINDER	6	HM	942	40945

P014 - holzma saws PLANT 2 DUST COLLECTORS.XLS HOLZMA SAWS					
Dust Collection Sizes and Reading					
For:		HOLZMA SAWS			
EPA ID#		P014			
KMC Asset #		P2-10905			
DUST COLLECTOR #03					
Date: 5/2006	KraftMaid Design Velocity =			5200	
Fan Motor FLA					
As Of 8/2/07					
Motor running			Fan Motor Amps		
Loaded			CFM Running Total		
Equipment 150 HP 142 BHP 801 RPM Fan inlet 37"		36432		MAX CFM @ 5200v	
39400 Max CFM @ 5200v 12" SP		20704			
			SIZE OF PIPE IN INCHES		Amount of CFM in pipe
HEAVY MILLING					
1	WEIMA GRINDER P2-921	10	HM	2836	2836
2	HOLZMA #3	3	HM	255	3091
3	HOLZMA #3	6	HM	1021	4112
4	HOLZMA #3	6	HM	1021	5133
5	HOLZMA #3	8	HM	1815	6949
6	NOTCHER	4	HM	454	7402
7	NOTCHER	4	HM	454	7856
8	HOLZMA #2	3	HM	255	8111
9	HOLZMA #2	3	HM	255	8367
10	HOLZMA #2	6	HM	1021	9388
11	HOLZMA #2	6	HM	1021	10409
12	HOLZMA #2	6	HM	1021	11430
13	HOLZMA #2	8	HM	1815	13245
14	HOLZMA #1	3	HM	255	13500
15	HOLZMA #1	3	HM	255	13755
16	HOLZMA #1	3	HM	255	14010
17	HOLZMA #1	6	HM	1021	15031



18	HOLZMA #1	6	HM	1021	16052
19	HOLZMA #1	6	HM	1021	17074
20	HOLZMA #1	8	HM	1815	18889
21	HOLZMA #1	8	HM	1815	20704

P019 – MASCO KraftMaid PLANT 2 DUST COLLECTORS.XLS Solid Surface (SS) Countertop Fabricating					
Source Equipment Dust Collection Sizes					
For:		Solid Surface (SS) Countertop Fabricating			
EPA ID#		P019			
KMC Asset #		P2-10918			
DUST COLLECTOR #16					
Date: 5/2006		KraftMaid Design Velocity =		5200	
Fan Motor FLA				171	
As Of 8/2/07		Fan Motor Amps		130	
Motor running		76%		Loaded	
Equipment 150 HP 142 BHP		39400		MAX CFM @ 5200v	
801 RPM Fan inlet 37"				CFM Running Total	
39400 Max CFM @ 5200v 12" SP				18220	
SIZE OF PIPE IN INCHES		Amount of CFM in pipe			

Solid Surface (SS) Countertop Fabricating Operations					
1	HOLZMA Panel Saw	8"	SS	1,220	1,220
2	Shoda (CNC 1)	12"	SS	3,535	4,755
3	Heian (CNC 2)	12"	SS	3,535	8,290
4	Backdraft (Assemby Line)	4"	SS	610	8,900
5	Molder	6"	SS	5,280	14,180
6	Disk Sander Bowls	6"	SS	880	15,060
7	Bowl Table Router (Overflow Router)	4"	SS	390	15,450
8	Bowl Blank Cut Out	6"	SS	880	16,330
9	Chop Saw	4"	SS	390	16,720
10	Haas (CNC 3)	8"	SS	1,500	18,220

P020 - bp area PLANT 2 DUST COLLECTORS.XLS BP LINE COLLECTORS					
Dust Collection Sizes and Reading					
For:		BP LINE COLLECTORS			
EPA ID#		P020			
KMC Asset #		P2-10915			
DUST COLLECTOR #13					
Date: 5/2006		KraftMaid Design Velocity =		5200	
Fan Motor FLA				171	
As Of 8/2/07		Fan Motor Amps		110	
Motor running		64%		Loaded	
Equipment 150 HP 142 BHP		39400		MAX CFM @ 5200v	
801 RPM Fan inlet 37"				CFM Running Total	
39400 Max CFM @ 5200v 12" SP				40528	
1128		SIZE OF PIPE IN INCHES		Amount of CFM in pipe	
BP MACHINES					
1	TOE KICK (AT TPT21)	5	BP	709	709
2	TOE KICK (AT TPT21)	5	BP	709	1418
3	PTP21 BHC 555	10	BP	2836	4254
4	PTP21 BHC 555	7	BP	1390	5644
5	PTP21 BHC 555	7	BP	1390	7043
6	PTP22 BHC 555	10	BP	2836	9870



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7	PTP22 BHC 555	7	BP	1390	11259
8	PTP22 BHC 555	7	BP	1390	12649
9	TOE KICK (AT TPT23)	4	BP	454	13103
10	TOE KICK (AT TPT23)	4	BP	454	13557
11	PTP23 BHC 555	10	BP	2836	16393
12	PTP23 BHC 555	7	BP	1390	17783
13	PTP23 BHC 555	7	BP	1390	19172
14	PTP24 BHC 555	10	BP	2836	22008
15	PTP24 BHC 555	7	BP	1390	23398
16	PTP24 BHC 555	7	BP	1390	24788
17	TOE KICK (AT PTP25)	4	BP	454	25242
18	TOE KICK (AT PTP25)	4	BP	454	25695
19	PTP25 BP12	8	BP	1815	27510
20	PTP26 BP 120	8	BP	1815	29326
21	TOE KICK (AT PTP27)	4	BP	454	29779
22	TOE KICK (AT PTP27)	4	BP	454	30233
23	PTP27 BP 120	8	BP	1815	32048
24	PTP28 BP 120	8	BP	1815	33863
25	TOE KICK (AT PTP29)	4	BP	454	34317
26	TOE KICK (AT PTP29)	4	BP	454	34771
27	PTP29 BP120	8	BP	1815	36586
28	PTP30 BP12	8	BP	1815	38401
29	ALTENDORF	5	BP	709	39110
30	ALTENDORF	5	BP	709	39819
31	ALTENDORF	5	BP	709	40528

P021 - premier 1				PLANT 2 DUST COLLECTORS.XLS EURO PREMIER 1	
Dust Collection Sizes and Reading					
For:			EURO PREMIER AREA		
EPA ID#			P021		
KMC Asset #			P2-10917		
DUST COLLECTOR #15					
Date: 5/2006		KraftMaid Design Velocity = 5200			
Fan Motor FLA		171			
As Of 8/2/07		Fan Motor Amps		123	
Motor running		72%	Loaded		CFM Running Total
		39400	MAX CFM @ 5200v		17981
Equipment Specifications:		HF37 150 HP 142 BHP 801 RPM Fan inlet 37"		39400 Max CFM @ 5200v 12" SP	
		SIZE OF PIPE IN INCHES		Amount of CFM in pipe	
EURO PREMIER ONE					
OLZMA #51			URO	321	321
OLZMA #51			URO	315	336
Leima Grinder			URO	336	372
PTIMAT KAL 310 EDGE BANDER			URO	39	381
PTIMAT KAL 310 EDGE BANDER			URO	39	390
DE KICK NOTCHER			URO	54	544
WK-100			URO	55	799
WK-100			URO	55	855
ALTENDORF TABLE SAW			URO	39	764
ALTENDORF TABLE SAW			URO	39	773
TP33 BHC355 - 27173			URO	336	2309
TP33 BHC355 - 27173			URO	336	3145
TP33 BHC355 - 27173			URO	336	7981



6. Emissions Unit Group -Woodworking Group C: P013

EU ID	Operations, Property and/or Equipment Description
P013	Woodworking equipment with a 40,000 cfmbaghouse, P2-10914.

- 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, f)(1)a, f)(1)b, and f)(2).
- 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)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack. PM ₁₀ emissions shall not exceed 0.86 pound per hour and 3.75 tons per year. Visible particulate emissions (PE) from the baghouse shall not exceed 0% opacity as a 6-minute average.
b.	OAC rule 3745-31-05 (A)(3)	PE shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack. PE shall not exceed 1.71 pounds per hour and 7.51 tons per year. See section b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11 OAC rule 3745-17-07 (A)	The requirements established pursuant to OAC rules 3745-17-11 and 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rules 3745-31-05 (D) and 3745-31-05 (A)(3).

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to baghouse P2-10914 at all times when the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across baghouse P2-10914 is between 1 to 5 inches of water. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on weekly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control



equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving these emissions units. 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 emissions 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 the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and



- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving these emissions units 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" (above) where a prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitation:
Visible particulate emissions from the baghouse shall not exceed 0% opacity as a 6-minute average.



Applicable Compliance Method:

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

b. Emission Limitation:

Emissions of PM₁₀ shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack.

PM₁₀ emissions shall not exceed 0.86 pound per hour and 3.75 tons per year.

Applicable Compliance Method:

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

The tons per year emission limitation was developed by multiplying the short-term allowable PM₁₀ emission limitation (0.86 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 0.005 grain per dscf of exhaust gases from the baghouse stack.

PE shall not exceed 1.71 pounds per hour and 7.51 tons per year.

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 tons per year emission limitation was developed by multiplying the short-term allowable PE limitation (1.71 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.

(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 (Group C). 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. 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.

The emissions unit P009 in Plant 3 was tested and demonstrated compliance on November 27, 2012. The emission testing for this group of emissions units shall be conducted again within 6 months of November 27, 2017.

- b. The emission testing shall be conducted to demonstrate compliance with the PE limitation of 0.005 grain per dscf and 0.0025 grain PM₁₀ per dscf from the baghouse stack and with the PE and PM₁₀ 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 PM₁₀ - 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.

P013 - custom cutting PLANT 2 DUST COLLECTORS.XLS CUSTOM CUTTING Dust Collection Sizes and Reading					
For:				CUSTOM CUTTING	
EPA ID#				P013	
KMC Asset #				P2-10914	
DUST COLLECTOR #12					
Date: 5/2006		KraftMaid Design Velocity =		4800	
Fan Motor FLA				168	
As Of 8/2/07		Fan Motor Amps		100	
Motor running		60%		Loaded	
Equipment 125 HP 117 BHP 1155 RPM Fan inlet 52"		36432		MAX CFM @ 4800v	
44000 Max CFM @ 5000v 10" SP				39531	
Size of pipe in inches				Amount of CFM in pipe	
CUSTOM CUTTING					
1	SE9400 EDGE BANDER 159	6	CC	942	942
2	SE9400 EDGE BANDER 159	6	CC	942	1885
3	KL-10 EDGE BANDER 161	5	CC	654	2539
4	KL-10 EDGE BANDER 161	5	CC	654	3194
5	KL-10 EDGE BANDER 161	8	CC	1675	4869
6	BACK GROOVE SAW/UNIT 85	5	CC	654	5524
7	HOLZMA #21	7	CC	1283	6807
8	HOLZMA #21	9	CC	2121	8927
9	WEIMA GEINDER	10	CC	2618	11545
10	PIN ROUTER P2-125	4	CC	419	11964
11	PIN ROUTER P2-125	7	CC	1283	13247
12	POWERMATIC SAW	5	CC	654	13901
13	HOLZMA #22	7	CC	1283	15184
14	HOLZMA #22	9	CC	2121	17305
15	WEIMA GEINDER	10	CC	2618	19923
16	HOLZMA #23	7	CC	1283	21206
17	HOLZMA #23	9	CC	2121	23326
18	WEIMA GEINDER	10	CC	2618	25944
19	FLOOR & CEILING ROUTER	4	CC	419	26363
20	FLOOR & CEILING ROUTER	4	CC	419	26782
21	FLOOR & CEILING ROUTER	4	CC	419	27201
22	FLOOR & CEILING ROUTER	4	CC	419	27620
23	HOLZMA #24	7	CC	1283	28902
24	HOLZMA #24	9	CC	2121	31023
25	WEIMA GEINDER	10	CC	2618	33641
26	BHC 600	5	CC	654	34295
27	BHC 600	5	CC	654	34950
28	BHC 600	5	CC	654	35604
29	BHC 600	5	CC	654	36259
30	BHC 600	5	CC	654	36913
31	BHC 600	10	CC	2618	39531



7. Emissions Unit Group -Woodworking with No Group: P009, P017, and P018

EU ID	Operations, Property and/or Equipment Description
P009	Woodworking equipment with an 11,200 cfmbaghouse, P2-10906.
P017	Woodworking equipment with an 12,500 cfmBaghouse, P2-10921.
P018	Woodworking equipment with an 8,500 cfmbaghouse, P2-10907.

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)(2)a, b)(2)b, f)(1)a, and f)(1)b.

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)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.0025 grain per dscf of exhaust gases from the baghouse stack. See sections b)(2)a and b)(2)b below.
b.	OAC rule 3745-31-05 (A)(3)	Particulate emissions (PE) shall not exceed 0.005 grain per dscf of exhaust gases from the baghouse stack. See sections b)(2)c, b)(2)d, b)(2)e, and b)(2)f below.
c.	OAC rule 3745-17-11 OAC rule 3745-17-07 (A)	The requirements established pursuant to OAC rules 3745-17-11 and 3745-17-07 (A), are less stringent than the requirements established pursuant to OAC rules 3745-31-05 (D) and 3745-31-05 (A)(3).



- (2) Additional Terms and Conditions
- a. Emissions of PM₁₀ from the baghouse stack associated with the emissions unit shall not exceed the following:
 - i. For emissions unit P009, 0.24 pound per hour and 1.05 tons per year;
 - ii. For emissions unit P017, 0.27 pound per hour and 1.17 tons per year; and
 - iii. For emissions unit P018, 0.18 pound per hour and 0.80 tons per year.
 - b. Visible particulate emissions from each baghouse stack shall not exceed 0% opacity as a 6-minute average.
 - c. PE from the baghouse stack associated with the emissions unit shall not exceed the following:
 - i. For emissions unit P009, 0.48 pound per hour and 2.10 tons per year;
 - ii. For emissions unit P017, 0.54 pound per hour and 2.35 tons per year; and
 - iii. For emissions unit P018, 0.36 pound per hour and 1.60 tons per year.
 - d. Fugitive particulate emissions from the dumpster area of emissions unit P018 shall not exceed 0.12 ton per year.
 - e. Visible emissions of fugitive dust from the dumpster area of emissions unit P018 shall not exceed 10% opacity, as a 3-minute average.
 - f. The emissions from each emissions unit shall be vented to the associated baghouse as follows at all times when the emissions unit is in operation.
 - i. P2-10906 for emissions unit P009;
 - ii. P2-10921 for emissions unit P017; and
 - iii. P2-10907 for emissions unit P018.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across each baghouse (P2-10906, P2-10921, and P2-10907) is between 1 to 5 inches of water. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake has developed on the bags.



- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each baghouse (P2-10906, P2-10921, and P2-10907) when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on weekly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the



permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each stack serving these emissions units (P009, P017, and P018) and/or any visible emissions of fugitive dust were observed from the dumpster area of emissions unit P018; 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 emissions 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 the grinder if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

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

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (2) The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving these emissions units (P009, P017, and P018) or any visible emissions of fugitive dust were observed around the dumpster area of emissions unit P018; 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of each baghouse (P2-10906, P2-10921, and P2-10907) during the 12-month reporting period for these emissions units:



- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" (above) where a prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- f) **Testing Requirements**
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Opacity Limitations:

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

Applicable Compliance Method:

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

PM₁₀ shall not exceed 0.0025 grain per dscf from each baghouse stack.

Emissions of PM₁₀ from the baghouse stack associated with the emissions unit shall not exceed the following:
 - i. For emissions unit P009, 0.24 pound per hour and 1.05 tons per year;
 - ii. For emissions unit P017, 0.27 pound per hour and 1.17 tons per year; and
 - iii. For emissions unit P018, 0.18 pound per hour and 0.80 tons per year.



Applicable Compliance Method:

These limitations are based upon the design of the baghouses and compliance with the grain loading limitation. Compliance with grain loading limitation has been demonstrated at similar, but larger, control equipment at MASCO Plant 1, Plant 2, or Plant 3.

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 for PM₁₀.

The tons per year emission limitations were developed by multiplying the short-term allowable PM₁₀ limitations (as appropriate) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitations, compliance shall also be shown with the annual emission limitations.

c. Opacity Limitations:

Visible emissions of fugitive dust from the dumpster area of emissions unit P018 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 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(3).

d. Emission Limitations:

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

PE from the baghouse stack associated with the emissions unit shall not exceed the following:

- i. For emissions unit P009, 0.48 pound per hour and 1.20 tons per year;
- ii. For emissions unit P017, 0.54 pound per hour and 2.35 tons per year; and
- iii. For emissions unit P018, 0.36 pound per hour and 1.60 tons per year.

Applicable Compliance Method:

These limitations are based upon the design of the baghouses and compliance with the grain loading limitation. Compliance with grain loading limitation has been demonstrated at similar, but larger, control equipment at MASCO Plant 1, Plant 2, or Plant 3.



If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 for PE.

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

e. Emission Limitation:

Fugitive particulate emissions from the dumpster area of emissions unit P018 shall not exceed the 0.12 ton per year.

Applicable Compliance Method:

Compliance shall be determined as follows:

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

where:

E = annual emissions, in tons;

SU = amount of sawdust anticipated to be load-out from the dumpster area per year, in tons. 1,164 tons per year for emissions unit P018;

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

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

g) **Miscellaneous Requirements**

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

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



The permittee shall also submit an updated table of equipment which is exempt from air permitting requirements to the Director (the Ohio EPA, Northeast District Office) on an 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 – weima grinders PLANT 2 DUST COLLECTORS.XLS Dust Collection Sizes and Reading					
For:		WEIMA GRINDERS FOR HOLZMA SAWS ONE AND TWO			
EPA ID#		P009			
KMC Asset #		P2-10906			
DUST COLLECTOR #4					
Date: 12/2013		KraftMaid Design Velocity = 3072			
Equipment Specifications:					
033-24-BAOO 50 HP 2412 RPM Fan inlet 24"			Permitted at 11,200 cfm		
11,200 Max CFM @3.072 fpm @12"SP			CFM Running Total for 3,072 V		
			4,825		
			SIZE OF PIPE IN INCHES	Amount of CFM in pipe	
HEAVY MILLING					
1	HOLZMA #1 GRINDER	12	HM	2413	2413
2	HOLZMA #1 GRINDER	12	HM	2413	4825

TABLE FOR EMISSIONS UNIT P017 AT PLANT 2
 EPA Label = P2-10921 Date 1/2009

Equipment	CFM in pipe
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	382
Molding Line Sta #1, 2, 3	859
Molding Line Sta #4 Toner Booth	4677
Molding Line Sta #4 Toner Booth	4677
Molding Line Sta #5 Oven	4677
Molding Line Sta #6 Stain Booth	4677
Molding Line Sta #6 Stain Booth	4677
Molding Line Sta #7	597
Molding Line Topcoat Booth	2386
Molding Line Sta #9, 10, 11	382
Molding Line Sta #9,10, 11	382
Molding Line Sta #9, 10, 11	382
Molding Line Sta #9, 10, 11	382
Molding Line Sta #9, 10, 11	382



Molding Line Sta #12 Sealer Booth	2386
Molding Line Sta #13 UV	2386
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	382
Molding Line Sta #14, 15, 16	859
Molding Line Sta #17	597
Molding Line Sta #17	2386
Molding Line Sta #20-21	2386

TABLE P2-P18 FOR EMISSIONS UNIT P018 AT PLANT 2
 EPA Label = P2-10907 Date 1/2009

Equipment	CFM in pipe
Prototype Shop	
Weeke BP-12	1169
Belt Sander	382
Band Saw	382
Spindle Sander/Planer	382
10" Delta Table Saw	382
Whirlwind Sander	597
5-Speed Shaper	1169
5-Speed Shaper	1169
Table Saw/F-45	859
Time Saver	1527
Time Saver	1527
Time Saver	1527
Top Shop	
Hitachi Cut-Off Saw	215
Dewalt Cut-Off Saw	54
Table Saw/F-45	597
Table Saw/F-46	215