



State of Ohio Environmental Protection Agency

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12/23/2009

THOMAS UPDIKE  
FOOTE FOUNDRY L.L.C.  
283 N MAIN ST  
PO BOX 150  
FREDERICKTOWN, OH 43019

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0142000119  
Permit Number: P0105014  
Permit Type: OAC Chapter 3745-31 Modification  
County: Knox

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Mt. Vernon News. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.ohio.gov/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

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

and Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA-CDO

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install and Operate  
FOOTE FOUNDRY L.L.C.

Issue Date: 12/23/2009  
Permit Number: P0105014  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Description: Modify PTI 01-6095 by removing the baghouse annual hours of operation restriction, updating the emission limitations and incorporating federally enforceable restrictions on the potential to emit to avoid Title V and PSD.  
Facility ID: 0142000119  
Facility Location: FOOTE FOUNDRY L.L.C.  
283 N MAIN ST,  
FREDERICKTOWN, OH 43019  
Facility Description: Iron Foundries

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Kelly Toth at Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049 or (614)728-3778. The permit can be downloaded from the Web page: [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc)



## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Footo Foundry LLC is a gray and ductile iron foundry located in Knox County. The emissions units located at the facility are as follows:

F001 – Unpaved roadways and parking surfaces. Fugitive particulate emissions are generated by automobile and truck traffic. This emissions unit is a “de-minimis” unit and is not subject to permitting.

F003 – Sand unloading and storage. Particulate emissions are generated from the unloading and handling of the sand that is utilized in the core and mold making processes. The unloading and handling of sand takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse.

P005 – Rotary table shotblasting operations. Particulate emissions are generated by spraying a fine substrate across metal products for the purpose of removing imperfections and preparing the products for finishing. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse.

P901 and P902 – Electric induction furnaces #1 and #2. Particulate emissions are generated from the melting of metal inside of the furnaces and the handling of scrap metal (to be melted) outside of the furnaces. These processes take place inside of the primary foundry building where emissions are captured and directed to a common control baghouse.

P903 – Ductile iron inoculation. PE and VOC emissions are generated as refining elements are added to the molten iron. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse. VOC emissions are not controlled.

P904 – Pouring and cooling operations. Particulate emissions are generated from the pouring of molten iron into sand molds. PE continue to be generated through the cooling process. VOC emissions are generated from the volatilization of compounds in the resin that is mixed with the sand to allow the sand mold to keep a particular form. This process takes place inside of the primary foundry building where particulate emissions are captured and directed to a common control baghouse. VOC emissions are not controlled.

P905 – Casting shakeout. Particulate emissions are generated when molds are placed on a vibration table to separate core and mold sand from the mold. VOC emissions are released as the mold and sand are separated. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse. VOC emissions are not controlled.

P906 – Grinding and chipping operations. Particulate emissions are generated by personnel removing imperfections from the molds. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse.



P907 – Sand handling system. Particulate emissions are generated from the handling of sand

throughout the foundry (e.g. transferring from shakeout to sand silos). VOC emissions are generated during core baking. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse. VOC emissions are generated during core baking. VOC emissions are not controlled.

P908 – Mold sand preparation and mold making. PE and VOC emissions are generated from the handling of sand and additives during mold making. This process takes place inside of the primary foundry building where emissions are captured and directed to a common control baghouse. VOC emissions are not controlled.

With the exception of EU F001, all of the above processes are permitted under PTI 01-6095. PTI 01-6095 contains terms and conditions that limit the operating hours of the baghouse to 2200 hours per year. The facility has requested that this operating restriction be removed and requested federally enforceable restrictions in order to avoid the Title V and PSD programs. This permitting action is being processed as a Chapter 31 modification to PTI 01-6095 and incorporates the removal of the restriction on the hours of operation for the common control baghouse. Additionally, this permit includes federally enforceable restrictions that limit the potential-to-emit (particulate emissions) for the facility to levels below the Title V and PSD program thresholds.

3. Facility Emissions and Attainment Status:

Footnote Foundry LLC is located in Knox County which is designated as an attainment area for PM<sub>2.5</sub> and as a basic non-attainment area for Ozone. In the absence of PM<sub>2.5</sub> emissions factors, particulate emissions have been substituted throughout this evaluation. The following table identifies the potential particulate emissions before and after controls and the potential VOC emissions without controls (using 99% overall control efficiency for PE):

**Potential-to-Emit (for NA-NSR, PSD and Title V applicability)**

	Uncontrolled (tpy)		Controlled (tpy)
	VOC	PE	PE
<b>F001</b>	<b>NA</b>	<b>2.60</b>	<b>0.78</b>
F003	NA	11.65	3.50
P005	NA	135.78	1.36
P901	NA	13.14	0.13
P902	NA	13.14	0.13
P903	0.04	15.77	0.18
P904	5.01	110.38	1.10
P905	16.78	28.03	0.26
P906	NA	21.90	0.22
P907	8.29	34.73	0.35
P908	0.09	340.59	3.42
<b>Totals:</b>	<b>30.21</b>	<b>727.71</b>	<b>11.43</b>

F001 is not included in this permit

As identified in this table, the potential-to-emit for VOC does not exceed the Title V or Non-attainment NSR thresholds and the potential-to-emit for PE must be restricted in order to avoid both the Title V and PSD programs.



The application for this modification was received on June 8, 2009; therefore, BAT was assessed in accordance with the BAT rules that applied between August 2006 and August 2009. In accordance with the information provided in the table above, BAT does not apply to any of the EUs for PE because the controlled potential-to-emit PE for each EU is less than 10 tpy. Also, BAT does not apply to EUs

P904, P907 and P908 because the uncontrolled potential-to-emit VOCs for each of these units is less than 10 tpy. BAT does apply to EU P905 because VOCs are not controlled and the potential-to-emit VOCs is greater than 10 tpy.

The federally enforceable restrictions to limit the potential-to-emit for PE established in this permit include; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate 100% capture.

In order to establish the 35.65 tons PE per rolling, 12-month limitation, the 0.01 gr/dscf limitation was multiplied by the dscf measured during the most recent compliance demonstration that demonstrated compliance with the grain loading limitation (10/6/1997). This value was recorded to be 95,000 dscf/min. The grains/min value was then converted to lbs/hr by multiplying by 60 min/hr and by 1 lb/7000 gr, establishing a combined hourly potential-to-emit of 8.14 lb/hr PE which equates to an annual combined potential-to-emit of 35.65 tpy PE.

Knox County is not an Appendix A area; therefore, these emissions units are exempt from the visible particulate emission limitations for fugitive dust specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e) and the requirements of OAC rule 3745-17-08(B), which require the installation of reasonably available control measures to prevent fugitive dust, do not apply to these emissions unit pursuant to OAC rule 3745-17-08(A)(1).

#### 4. Source Emissions:

Emissions unit F003 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE because the controlled potential-to-emit is less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for this EU is calculated to be less than 10 lbs/hr. Using a PWR of 38 T/hr, the PE limitation established in accordance with Table I is 42.06 lbs/hr. This limitation is determined to be less stringent than the combined grain loading limitation of 0.01 gr/dscf (equivalent to 8.14 lbs PE/hr combined).

Emissions unit P005 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE because the controlled potential-to-emit is less than ten tons per year.



OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(B)(2) – Using an UMRE of 31 lb/hr PE, the PE limitation established in accordance with Figure II is 5.56 lbs/hr. The controlled potential-to-emit for this emissions unit is calculated to be 0.31 lb/hr PE; therefore, provided the facility maintains the recordkeeping requirements necessary to demonstrate that the emissions from this EU are captured and directed to the baghouse, it should not be necessary to develop specific requirements to demonstrate compliance with the 5.56 lbs/hr PE limitation.

Emissions unit P901 and P902 are subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE because the controlled potential-to-emit is less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for each EU is calculated to be less than 10 lbs/hr. Using a PWR of 4 T/hr, the PE limitation established in accordance with Table I is 10.4 lbs/hr. This limitation is determined to be less stringent than the combined grain loading limitation of 0.01 gr/dscf (equivalent to 8.14 lbs PE/hr combined).

The terms and conditions for EUs P901 and P902 contain an operational restriction that prohibits the permittee from operating these EUs simultaneously. The operational restriction is included as part of the synthetic minor strategy because it limits the facility to the current operating maximum (17,520 tons per year).

Emissions unit P903 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE or VOC emissions because the controlled potential-to-emit for PE and uncontrolled potential-to-emit for VOC are both less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for this EU is calculated to be less than 10 lbs/hr. Using a PWR of 2 T/hr, the PE limitation established in accordance with Table I is 6.52 lbs/hr. The controlled



potential-to-emit for this emissions unit is calculated to be 0.18 lb/hr PE; therefore, provided the facility maintains the recordkeeping requirements necessary to demonstrate that the emissions from this EU are captured and directed to the baghouse, it should not be necessary to develop specific requirements to demonstrate compliance with the 6.52 lbs/hr PE limitation.

Emissions unit P904 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE or VOC emissions because the controlled potential-to-emit for PE and uncontrolled potential-to-emit for VOC are both less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(B)(2) – Using an UMRE of 25.2 lb/hr PE, the PE limitation established in accordance with Figure II is 4.76 lbs/hr. The controlled potential-to-emit for this emissions unit is calculated to be 1.10 lb/hr PE; therefore, provided the facility maintains the recordkeeping requirements necessary to demonstrate that the emissions from this EU are captured and directed to the baghouse, it should not be necessary to develop specific requirements to demonstrate compliance with the 4.76 lbs/hr PE limitation.

Emissions unit P905 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE because the controlled potential-to-emit is less than ten tons per year.

OAC rule 3745-31-05(A)(3) – VOC emissions shall not exceed 3.83 lbs/hr and 16.78 tpy. These limits reflect the potential-to-emit for this emissions unit. The potential-to-emit was calculated using ratios derived from the Casting Emission Reduction Program (CERP) report *Baseline Testing Emission Results Production Foundry Technikon # 001-004 NA (February 7, 2000)*. The report suggests that an emission factor of 2.488 lbs VOC/ ton iron should be used to calculate VOC emissions from pouring, cooling and shakeout and that 23% of VOC emissions are generated by pouring and cooling operations and 77% of VOC emissions are generated by shakeout operations.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for this EU is calculated to be less than 10 lbs/hr. Using a PWR of 2 T/hr, the PE limitation established in accordance with Table I is 6.52 lbs/hr. The controlled potential-to-emit for this emissions unit is calculated to be 0.26 lb/hr PE; therefore, provided the facility maintains the recordkeeping requirements necessary to demonstrate that the emissions from this EU are captured and directed to the baghouse, it should not be necessary to develop specific requirements to demonstrate compliance with the 6.52 lbs/hr PE limitation.



Emissions unit P906 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE because the controlled potential-to-emit is less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of

35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for this EU is calculated to be less than 10 lbs/hr. Using a PWR of 2 T/hr, the PE limitation established in accordance with Table I is 6.52 lbs/hr. The controlled potential-to-emit for this emissions unit is calculated to be 0.22 lb/hr PE; therefore, provided the facility maintains the recordkeeping requirements necessary to demonstrate that the emissions from this EU are captured and directed to the baghouse, it should not be necessary to develop specific requirements to demonstrate compliance with the 6.52 lbs/hr PE limitation.

Emissions unit P907 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE or VOC emissions because the controlled potential-to-emit for PE and uncontrolled potential-to-emit for VOC are both less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(A)(2) – In accordance with OAC rule 3745-17-11(A)(2)(a)(ii), Table I was used to determine the PE limitations because the UMRE for this EU is calculated to be less than 10 lbs/hr. Using a PWR of 10.4 T/hr, the PE limitation established in accordance with Table I is 19.68 lbs/hr. This limitation is determined to be less stringent than the combined grain loading limitation of 0.01 gr/dscf (equivalent to 8.14 lbs PE/hr combined).

Emissions unit P908 is subject to the following rules:

OAC rule 3745-31-05(A)(3)(a)(ii) – BAT does not apply to the PE or VOC emissions because the controlled potential-to-emit for PE and uncontrolled potential-to-emit for VOC are both less than ten tons per year.

OAC rule 3745-31-05(D) – Synthetic minor emissions limitations and operational restrictions accepted to avoid Title V and PSD; 0.01 gr/dscf limitation on the baghouse outlet, a combined PE limitation of 35.65 tons per rolling, 12-month period for all of the EUs, the use of the baghouse when any of the EUs is operating and the appropriate monitoring, recordkeeping and testing requirements necessary to demonstrate compliance with the each of these limitations and to demonstrate that PE are captured, and directed to the control device.

OAC rule 3745-17-11(B)(2) – Using an UMRE of 77.76 lb/hr PE, the PE limitation established in accordance with Figure II is 11.07 lbs/hr. This limitation is determined to be less stringent than the combined grain loading limitation of 0.01 gr/dscf (equivalent to 8.14 lbs PE/hr combined).



**Air Toxics and Compliance with Ohio Significant Emission Rates:**

In accordance with Table 3 of Engineering Guide #69, particulate emissions were modeled using Screen3 because the permit allowable particulate emissions are greater than 10 tpy (11.43 tpy). The modeling was performed using information provided in the PTIO application and a PE emission rate of 8.14 lbs/hr. The results of the modeling indicate a maximum 1-hr concentration at or beyond 1 meter of 55.96 ug/m<sup>3</sup> PE. This concentration was then compared to the NAAQS standards (for PM<sub>10</sub>) of 50 ug/m<sup>3</sup> (annual) and 150 ug/m<sup>3</sup> (24-hr). In accordance with Engineering Guide #69, the 1-hr concentration was converted for comparison with the annual standard by multiplying the 1-hr concentration by 0.080. The resulting annual-equivalent concentration is 4.48 ug/m<sup>3</sup> which is less than the annual NAAQS standard of 50 ug/m<sup>3</sup>. In accordance with Engineering Guide #69, the 1-hr concentration was converted for comparison with the 24-hr standard by multiplying the 1-hr concentration by 0.400. The resulting 24-hr-equivalent concentration is 22.38 ug/m<sup>3</sup> which is less than the 24-hr NAAQS standard of 150 ug/m<sup>3</sup>.

In accordance with Table 3 of Engineering Guide #69, benzene emissions were modeled using Screen3 because the increase in allowable benzene emissions was calculated to be greater than 1 tpy. The modeling was performed using information provided in the PTIO application and a benzene emission rate of 2.82 lbs/hr. The increase in the benzene emission rate was determined to be 2.82 lb/hr using the emissions factor for benzene (0.2255 lbs/ton iron) from the Casting Emission Reduction Program (CERP) report *Baseline Testing Emission Results Production Foundry Technikon # 001-004 NA (February 7, 2000)* and information provided in the PTIO application and PTI 01-6905. The modeling was performed using information provided in the PTIO application and a benzene emission rate of 2.82 lbs/hr. The results of the modeling indicate a maximum 1-hr concentration at or beyond 1 meter of 18.98 ug/m<sup>3</sup> benzene. The MAGLC for benzene is calculated to be 38.10 ug/m<sup>3</sup>; therefore, the modeling demonstrates compliance with the Toxic Air Contaminant Statute because the maximum 1-hr concentration represents only 50% of the MAGLC.

**5. Conclusion:**

The terms and conditions contained within PTI P0105014 are sufficient to ensure compliance with all state and federal regulations. The permit should be issued draft to allow for USEPA review and public comment in order to ensure that the terms and conditions limiting the potential-to-emit for PE are federally enforceable.

**6. Please provide additional notes or comments as necessary:**

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	30.21
PE	35.65





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**DRAFT**

**Air Pollution Permit-to-Install and Operate  
for  
FOOTE FOUNDRY L.L.C.**

Facility ID: 0142000119  
Permit Number: P0105014  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 12/23/2009  
Effective: To be entered upon final issuance  
Expiration: To be entered upon final issuance





**Air Pollution Permit-to-Install and Operate**  
for  
**FOOTE FOUNDRY L.L.C.**

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105014

**Facility ID:** 0142000119

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

## Authorization

Facility ID: 0142000119

Application Number(s): A0013999, A0037426

Permit Number: P0105014

Permit Description: Modify PTI 01-6095 by removing the baghouse annual hours of operation restriction, updating the emission limitations and incorporating federally enforceable restrictions on the potential to emit to avoid Title V and PSD.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$7,250.00 *DO NOT send payment at this time - subject to change before final issuance*

Issue Date: 12/23/2009

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

FOOTE FOUNDRY L.L.C.  
283 N MAIN ST  
FREDERICKTOWN, OH 43019

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

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

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

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

Chris Korleski  
Director



## Authorization (continued)

Permit Number: P0105014

Permit Description: Modify PTI 01-6095 by removing the baghouse annual hours of operation restriction, updating the emission limitations and incorporating federally enforceable restrictions on the potential to emit to avoid Title V and PSD.

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

<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	P010
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	SHOT BLASTING
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P901</b>
Company Equipment ID:	MFS-4000
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P902</b>
Company Equipment ID:	P902
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P903</b>
Company Equipment ID:	F002
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P904</b>
Company Equipment ID:	POURING AND COOLING
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P905</b>
Company Equipment ID:	P008
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P906</b>
Company Equipment ID:	GRINDING AND CHIPPING OPERATIONS
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P907</b>
Company Equipment ID:	Sand Handling System
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P908</b>
Company Equipment ID:	P009
Superseded Permit Number:	01-6095
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105014

**Facility ID:** 0142000119

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

## **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 will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

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

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



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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

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

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

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

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting 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



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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.



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**Permit Number:** P0105014

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## **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. The permittee shall demonstrate compliance with the applicable emissions limitations, monitoring and recordkeeping requirements, reporting requirements and testing requirements identified in 40 CFR Part 63, Subpart ZZZZZ.

In accordance with 40 CFR 63.10880(b)(1) and 63.10880(f), the facility is determined to be a small, existing affected source because the source commenced construction or reconstruction before September 17, 2007 and because the metal melt production for calendar year 2008 was less than 20,000 tons.



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



1. F003, P010

Operations, Property and/or Equipment Description:

Sand (core and molding) unloading and storage controlled by a common baghouse

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

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

a. None.

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

a. b)(1)b., b)(2)b., b)(2)c, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)b. and b)(2)c. below.
c.	OAC rule 3745-17-11(A)(2)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).

b. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.



- c. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- d. The PE limitation established by this rule is less stringent than the combined grain loading limitation established under OAC rule 3745-31-05(D).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;



- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:

- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$



where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 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;
    - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and
    - iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).



If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

- a. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

- b. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

- a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;

- b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central District Office or local air agency. 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 Central District Office's refusal to accept the results of the emission test(s).
  - f. Personnel from the Central 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 Central 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 Central District Office.
- g) Miscellaneous Requirements
- (1) None.



**2. P005, SHOT BLASTING**

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

Rotary table shot blasting operation controlled by common baghouse

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

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

a. None.

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

a. b)(1)b., b)(2)b., b)(2)c, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)b. and b)(2)c. below.
c.	OAC rule 3745-17-11(B)(2)	PE from this emissions unit shall not exceed 5.56 lbs/hr.  See b)(2)d. below.

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).



- b. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
  - c. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
  - d. The hourly PE limitation established for this emissions unit is greater than the potential-to-emit for PE as vented to the baghouse and in accordance with the information provided in the PTIO application. The recordkeeping and monitoring requirements that ensure PE from this emissions unit are captured and directed to the baghouse are sufficient to ensure compliance with this limit.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
  - (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:



- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 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;
    - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and



iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

(3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

a. Emissions Limitation:

PE from this emissions unit shall not exceed 5.56 lbs/hr.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

b. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

c. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:



Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

- a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;
- b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Central 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 Central 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 Central District Office.

g) Miscellaneous Requirements

(1) None.



**3. P901, MFS-4000**

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

Electric induction furnace #1, melting and tapping controlled by common baghouse

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

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

a. None.

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

a. b)(1)b., b)(2)b., b)(2)c, c)(1), d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)b. and b)(2)c. below.
c.	OAC rule 3745-17-11(A)(2)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).

b. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.



- c. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- d. The PE limitation established by this rule is less stringent than the combined grain loading limitation established under OAC rule 3745-31-05(D).

c) Operational Restrictions

- (1) Emissions unit P901 and P902 shall not operate simultaneously.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;



- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the hours of operation for the baghouse;
  - b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$



where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The permittee shall collect and record the following information each day for this emissions unit:

a. each period of time (start time and end time) when emissions units P901 and P902 were operated simultaneously.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. 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;

ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

iii. any period of time (start time and date, and end time and date) when emissions unit P901 and P902 were operated simultaneously;

iv. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and



- v. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

- a. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

- b. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

- a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;
- b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
40 CFR Part 60, Appendix A, method 5.  
  
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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Central 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 Central 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 Central District Office.

g) Miscellaneous Requirements

- (1) None.



**4. P902, P902**

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

Electric induction furnace #2, melting and tapping controlled by common baghouse

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

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

a. None.

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

a. b)(1)b., b)(2)b., b)(2)c, c)(1), d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)b. and b)(2)c. below.
c.	OAC rule 3745-17-11(A)(2)	See b)(2)d. below.

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).

b. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.



- c. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- d. The PE limitation established by this rule is less stringent than the combined grain loading limitation established under OAC rule 3745-31-05(D).

c) Operational Restrictions

- (1) Emissions unit P901 and P902 shall not operate simultaneously.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;



- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the hours of operation for the baghouse;
  - b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$



where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The permittee shall collect and record the following information each day for this emissions unit:

a. each period of time (start time and end time) when emissions units P901 and P902 were operated simultaneously.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. 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;

ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

iii. any period of time (start time and date, and end time and date) when emissions unit P901 and P902 were operated simultaneously;

iv. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and



- v. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

a. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

b. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

- a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;
- b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
40 CFR Part 60, Appendix A, method 5.  
  
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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
  - f. Personnel from the Central 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.
- (3) 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 Central 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 Central District Office.
- g) Miscellaneous Requirements
- (1) None.



**5. P903, F002**

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

Ductile iron inoculation controlled by common 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. d)(6) through d)(9).

(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)b., b)(2)c., b)(2)d, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. and b)(2)b. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)c. and b)(2)d. below.
c.	OAC rule 3745-17-11(A)(2)	PE from this emissions unit shall not exceed 6.52 lbs/hr.  See b)(2)e. below.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(6) through d)(9).

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential



to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).

- b. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source because the uncontrolled potential to emit for VOC is less than ten TPY.
- c. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
- d. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- e. The hourly PE limitation established for this emissions unit is greater than the potential-to-emit for PE as vented to the baghouse and in accordance with the information provided in the PTIO application. The recordkeeping and monitoring requirements that ensure PE from this emissions unit are captured and directed to the baghouse are sufficient to ensure compliance with this limit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.



The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:

- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

- (6) The PTIO application for emissions unit(s) P903, P904, P905, P907 and P908 was evaluated based on the actual materials and the design parameters of the emissions unit’s(s’) exhaust system, as specified by the permittee. The “Toxic Air Contaminant Statute”, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled “Review of New Sources of Air Toxic Emissions, Option A”, as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: benzene

TLV (mg/m3): 1.60

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 18.98

MAGLC (ug/m3): 38.10

The permittee, has demonstrated that emissions of benzene, from emissions unit(s) P903, P904, P905, P907 and P908 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:



- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum



ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. 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;
  - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and
  - iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

(3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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



a. Emissions Limitation:

PE from this emissions unit shall not exceed 6.52 lbs/hr.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

b. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

c. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;

b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).

- f. Personnel from the Central 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 Central 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 Central District Office.

g) Miscellaneous Requirements

- (1) None.



**6. P904, POURING AND COOLING**

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

Pouring and cooling operations controlled by common 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. d)(6) through d)(9).

(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)b., b)(2)c., b)(2)d, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. and b)(2)b. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)c. and b)(2)d. below.
c.	OAC rule 3745-17-11(B)(2)	PE from this emissions unit shall not exceed 4.76 lbs/hr.  See b)(2)e. below.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(6) through d)(9).

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential



to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).

- b. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source because the uncontrolled potential to emit for VOC is less than ten TPY.
- c. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
- d. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- e. The hourly PE limitation established for this emissions unit is greater than the potential-to-emit for PE as vented to the baghouse and in accordance with the information provided in the PTIO application. The recordkeeping and monitoring requirements that ensure PE from this emissions unit are captured and directed to the baghouse are sufficient to ensure compliance with this limit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.



The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

(5) The permittee shall collect and record the following information each month for this emissions unit:

- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The PTIO application for emissions unit(s) P903, P904, P905, P907 and P908 was evaluated based on the actual materials and the design parameters of the emissions unit’s(s’) exhaust system, as specified by the permittee. The “Toxic Air Contaminant Statute”, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled “Review of New Sources of Air Toxic Emissions, Option A”, as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: benzene

TLV (mg/m3): 1.60

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 18.98

MAGLC (ug/m3): 38.10

The permittee, has demonstrated that emissions of benzene, from emissions unit(s) P903, P904, P905, P907 and P908 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:



- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum



ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. 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;

ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and

iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

(3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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



a. Emissions Limitation:

PE from this emissions unit shall not exceed 4.76 lbs/hr.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

b. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

c. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;

b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).

- f. Personnel from the Central 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 Central 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 Central District Office.

g) Miscellaneous Requirements

- (1) None.



**7. P905, P008**

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

Casting shake out controlled by common 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. d)(6) through d)(9).

(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)b., b)(2)c., b)(2)d, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 3.83 pounds per hour (lbs/hr) and 16.78 tons per year (TPY).</p> <p>See b)(2)b. below.</p>
c.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	<p>PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).</p> <p>See b)(2)c. and b)(2)d. below.</p>
d.	OAC rule 3745-17-11(A)(2)	<p>PE from this emissions unit shall not exceed 6.52 lbs/hr.</p> <p>See b)(2)e. below.</p>
e.	ORC 3704.03(F) and OAC rule 3745-114	See d)(6) through d)(9).



(2) Additional Terms and Conditions

- a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten TPY.
- b. The hourly and annual VOC limitations established for this emissions unit reflect the potential-to-emit for VOC in accordance with the information provided in the PTIO application. It is not necessary to develop recordkeeping and monitoring requirements to ensure compliance with this limit.
- c. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
- d. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
- e. The hourly PE limitation established for this emissions unit is greater than the potential-to-emit for PE as vented to the baghouse and in accordance with the information provided in the PTIO application. The recordkeeping and monitoring requirements that ensure PE from this emissions unit are captured and directed to the baghouse are sufficient to ensure compliance with this limit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
- (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions



units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

(5) The permittee shall collect and record the following information each month for this emissions unit:

- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The PTIO application for emissions unit(s) P903, P904, P905, P907 and P908 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:



- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: benzene

TLV (mg/m<sup>3</sup>): 1.60

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 18.98

MAGLC (ug/m<sup>3</sup>): 38.10

The permittee, has demonstrated that emissions of benzene, from emissions unit(s) P903, P904, P905, P907 and P908 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the



predicted 1-hour maximum ground-level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination



that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. 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;
  - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and
  - iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to



March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

a. Emissions Limitation:

PE from this emissions unit shall not exceed 6.52 lbs/hr.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

b. Emissions Limitation:

VOC emissions shall not exceed 3.83 lbs/hr and 16.78 TPY.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 18, 25 or 25A.

c. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

d. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;



- b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
40 CFR Part 60, Appendix A, method 5.  
  
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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Central 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 Central 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 Central District Office.

g) Miscellaneous Requirements

- (1) None.



**8. P906, GRINDING AND CHIPPING OPERATIONS**

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

Grinding and chipping operations controlled by common baghouse

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

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

a. None.

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

a. b)(1)b., b)(2)b., b)(2)c, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)b. and b)(2)c. below.
c.	OAC rule 3745-17-11(A)(2)	PE from this emissions unit shall not exceed 6.52 lbs/hr.  See b)(2)d. below.

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).



- b. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
  - c. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
  - d. The hourly PE limitation established for this emissions unit is greater than the potential-to-emit for PE as vented to the baghouse and in accordance with the information provided in the PTIO application. The recordkeeping and monitoring requirements that ensure PE from this emissions unit are captured and directed to the baghouse are sufficient to ensure compliance with this limit.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
  - (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:



- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 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;
    - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and



- iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

- a. Emissions Limitation:

PE from this emissions unit shall not exceed 6.52 lbs/hr.

Applicable Compliance Method:

If required, compliance with this limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

- b. Emissions Limitation:

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

- c. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.



- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;
  - b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
40 CFR Part 60, Appendix A, method 5.  
  
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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
  - f. Personnel from the Central 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.
- (3) 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 Central 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 Central District Office.

g) Miscellaneous Requirements

- (1) None.



**9. P907, Sand Handling System**

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

Sand handling system controlled by common 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. d)(6) through d)(9).

(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)b., b)(2)c., b)(2)d, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. and b)(2)b. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)c. and b)(2)d. below.
c.	OAC rule 3745-17-11(A)(2)	See b)(2)e. below.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(6) through d)(9).

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).



- b. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source because the uncontrolled potential to emit for VOC is less than ten TPY.
  - c. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
  - d. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
  - e. The PE limitation established by this rule is less stringent than the combined grain loading limitation established under OAC rule 3745-31-05(D).
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
  - (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:



- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The PTIO application for emissions unit(s) P903, P904, P905, P907 and P908 was evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or



- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: benzene

TLV (mg/m3): 1.60

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 18.98

MAGLC (ug/m3): 38.10

The permittee, has demonstrated that emissions of benzene, from emissions unit(s) P903, P904, P905, P907 and P908 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and



- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date



identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 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;
    - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and
    - iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

- (1) Compliance with the emissions limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emissions Limitation:  
  
The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:



Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

b. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;

b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central District Office or local air agency. 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 Central District Office's refusal to accept the results of the emission test(s).

f. Personnel from the Central 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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105014

**Facility ID:** 0142000119

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

Central 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 Central District Office.

g) Miscellaneous Requirements

(1) None.



**10. P908, P009**

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

Mold sand preparation and mold making controlled by common 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. d)(6) through d)(9).

(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)b., b)(2)c., b)(2)d, d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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.	Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. and b)(2)b. below.
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V) (Synthetic minor to avoid Non-Attainment NSR)	PE from the baghouse shall not exceed 0.01 grain per dry standard cubic feet (gr/dscf).  See b)(2)c. and b)(2)d. below.
c.	OAC rule 3745-17-11(B)(2)	See b)(2)e. below.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(6) through d)(9).

(2) Additional Terms and Conditions

a. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the particulate emissions (PE) from this air contaminant source because the potential to emit for PE, taking into account air pollution controls installed on the source, is less than ten tons per year (TPY).



- b. The BAT requirements under OAC rule 3745-31-05 (A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source because the uncontrolled potential to emit for VOC is less than ten TPY.
  - c. The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.
  - d. All of the emissions from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall be vented to the baghouse when one or more of the emissions units are in operation.
  - e. The PE limitation established by this rule is less stringent than the combined grain loading limitation established under OAC rule 3745-31-05(D).
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 8.0 inches of water.
  - (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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily 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 limit or 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:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. 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 Central 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) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the permittee shall maintain the structure containing emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 at negative pressure.

A minimum indraft velocity of 10 ft/min shall exist through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

- (4) The permittee shall properly operate and maintain equipment to monitor the indraft velocity of which exists through any opening in the structure which contains emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 and that remains open during operation of these emissions units and is not connected to a duct in which a fan is installed.

The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the indraft velocity of each of the above described openings on a daily basis.

- (5) The permittee shall collect and record the following information each month for this emissions unit:



- a. the hours of operation for the baghouse;
- b. the combined particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908, calculated according to the following equation:

$$PE = AOC * EV * (60/HO) * (1 \text{ lb}/7000 \text{ gr})$$

where;

AOC = the actual outlet concentration measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in gr/dscf;

EV = the stack exit velocity measured during the most recent compliance demonstration that demonstrated compliance with the 0.01 gr/dscf limitation, in dscf/min; and

HO = the actual monthly hours of operation recorded in accordance with d)(5)a.; and

- c. the combined, rolling, 12-month summation of particulate emissions for emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908.

(6) The PTIO application for emissions unit(s) P903, P904, P905, P907 and P908 was evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or



- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: benzene

TLV (mg/m3): 1.60

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 18.98

MAGLC (ug/m3): 38.10

The permittee, has demonstrated that emissions of benzene, from emissions unit(s) P903, P904, P905, P907 and P908 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and



- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date



identified in the Authorization section of this permit. The 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 quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 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;
    - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - iii. each period of time (start time and date, and end time and date) when the minimum required indraft velocity of 10 ft/min was not met; and
    - iv. each rolling, 12-month period during which the combined PE exceeded 35.65 tons.
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Central District Office).

f) Testing Requirements

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

The combined PE from emissions units F003, P005, P901, P902, P903, P904, P905, P906, P907 and P908 shall not exceed 35.65 tons per rolling, 12-month period.

Applicable Compliance Method:



Compliance shall be demonstrated by the recordkeeping requirements identified in d)(5).

b. Emissions Limitation:

PE from the baghouse shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

Compliance with the grain loading limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, method 5.

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

a. The emission testing shall be conducted within 3 months after issuance of the permit and every five years thereafter;

b. The emission testing shall be conducted to demonstrate compliance with the grain loading limitation of 0.01 gr/dscf;

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, method 5.

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 operating at or near its maximum capacity, unless otherwise specified or approved by the Central 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 Central District Office or local air agency. 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 Central District Office's refusal to accept the results of the emission test(s).

f. Personnel from the Central 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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105014

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

Central 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 Central District Office.

- g) Miscellaneous Requirements
  - (1) None.