Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part II - Specific Facility Terms and Conditions

a **State and Federally Enforceable Section**

1. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61 and OAC Chapter 3745-20.

2. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from Ohio EPA.

3. In order to avoid the requirements of 40 CFR Part 63, Subpart EEEEE, the permittee has voluntarily accepted a production restriction of 60,000 tons of iron produced, based on a rolling, 12 month summation.

   Through this production restriction the permittee's potential to emit for hazardous air pollutants (HAPs)* will be lowered to 9.9** tons per year for the highest single HAP and to 24.9** tons per year for all HAPs combined.

   * a listing of HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Northeast District Office of Ohio EPA.

   ** The potential to emit was used for emissions units not directly restricted by the production restriction.

4. To ensure that the production restriction and emission limitations are not exceeded, the permittee has agreed to accept the following record keeping requirement:

   The permittee shall maintain monthly records of the rolling, 12-month summations of the production rates [i.e., the rolling, 12-month summation of production rates shall be calculated by adding the production rates for the preceding 11 calendar months plus the production rate for the current calendar month].

5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

6. For units not directly restricted by the annual production restriction, the permittee shall maintain calculations of the potential to emit for each emissions unit.

   Prior to the installation of any new emissions units that emit any HAPs, the permittee shall submit a revised potential to emit analysis to demonstrate that the emissions unit will not cause the facility to become a major source of HAPs.

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b **State Only Enforceable Section**

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

   B006 - gas fired heater Inliner #3;
   B007 - gas fired heater cleaning room south #6;
   B008 - gas fired heater floor mold west #5;
   B009 - gas heater floor mold east #4;
   B010 - gas fired heater cleaning room north #7;
   B011 - gas fired heater core room south #9;
   B012 - gas fired heater core room north #10;
   B013 - gas fired heater Pangborn #8;
   B015 - emergency generator driven by diesel engine;
   B016 - emergency generator driven by natural gas engine;
   F001 - spent sand piles;
   F009 - nobake pour/cool line;
   P028 - core drying oven (north);
   Z001 - core drying oven (south);

Z002 - ladle heating;
Z003 - ladle lining mixer;
Z004 - welding;
Z005 - plant heating;
Z006 - transfer ladles;
Z008 - diesel storage tank;
Z009 - heat treat furnace (south);
Z010 - heat treat furnace (north);
Z011 - Shell blower #1 (MC-3);
Z012 - Shell blower #2 (U-150 south);
Z013 - Shell blower #3 (U-150 north);
Z014 - Shell blower #4 (U-180 south);
Z015 - Shell blower #5 (U-180 north);
Z016 - Shell blower #6 (803 south);
Z017 - Shell blower #7 (803 north);
Z018 - Shell blower #8 (X-180);
Z019 - Shell blower #9 (U-360);
Z020 - compressors (electric);
Z024 - ladle preheater #1;
Z025 - ladle preheater #2;
Z026 - ladle preheater #3;
Z027 - ladle preheater #4;
Z028 - ladle preheater #5;
Z029 - ladle preheater #6;
Z030 - ladle preheater #7;
Z031 - ladle preheater #8;
Z037 - cold cleaner (maint);
Z038 - cold cleaner (tool repair);
Z039 - cold cleaner (lift truck);
Z040 - cold cleaner (machine ctr.);
Z041 - cold cleaner (pattern shop);
Z042 - wood saw;
Z043 - belt sander; and
Z044 - disk sander.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a Permit to Install for the emissions unit.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F002 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
scrap reclaimer	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F002 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F003 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
electric induction furnace #1, with a maximum melt rate of 6 TPH (charging, melting, tapping, metal transfer and alloy refining for producing iron)	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F003 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under

state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F004 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall

not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
electric induction furnace #2, with a maximum melt rate of 6 TPH (charging, melting, tapping, metal transfer and alloy refining for producing iron)	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F004 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control

Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F005 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
electric induction furnace #3, with a maximum melt rate of 6 TPH (charging, melting, tapping, metal transfer and alloy refining for producing iron)	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F005 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F006 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
plant roadways and parking areas	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F006 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F008 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
phenolic urethane nobake mold system	OAC rule 3745-21-07(G)(2)	exempt, pursuant to OAC rule 3745-21-07(G)(9)(i) (See A.I.2.a.)
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to the uncaptured fugitive emissions from this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to the visible fugitive emissions from this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9648)	Particulate emissions (PE) shall not exceed 0.52 lb/hr from the bin vent stack. (See A.I.2.c.) Visible emissions of particulate matter from the bin vent stack shall not exceed 20 percent opacity, as a three-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 8 lbs/hr and 40 lbs/day. (See A.I.2.b.) The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G)(9)(i).
	OAC rule 3745-17-07(A)	The requirements established pursuant to OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	The requirements established pursuant to OAC rule 3745-17-11 are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

a. Although OAC rule 3745-21-07(G)(9)(i) specifies an exemption for the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This exemption was promulgated by the Ohio EPA and became effective on June 15, 1999. The Ohio EPA has received confirmation from the USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

b. No record keeping and monitoring is required for the hourly VOC emissions limit because the maximum uncontrolled emission rate of VOC cannot exceed the limit.

c. The pneumatic sand conveying, from the silo to the hopper shall be vented to the bin vent.

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II. **Operational Restrictions**

1. The usage of phenolic urethane resin shall be limited to 347 pounds per day.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records each day this emissions unit operates:

   a. the company identification of the liquid organic material used;

   b. the pounds of sand mixed;

   c. an estimate of the daily VOC emission rate (see A.V.1.c); and

   d. the usage of phenolic urethane resin, in pounds.

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

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

   * Because this operation is performed infrequently, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the VOC emissions exceeded 40 pounds per day, and the actual VOC emissions for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the phenolic urethane resin usage exceeded 347 pounds.

3. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the bin vent serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Prior to changing resins in this system, the permittee shall send product specification sheets to the Ohio EPA, Northeast District Office.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      0.52 lb/hr PE

      Applicable Compliance Method:

      Because there is no stack associated with the bin vent and because it vents inside the building, the permittee shall demonstrate compliance using the following equation:

E = [0.03 gr/dscf x 0.73 cf/min x 60 min/hour x 1 lb/7000 gr] + [Ti x 0.04 lb PE/ton iron]

where:

E = pounds PE per hour; and

Ti = tons of iron produced per hour.

The emission factor of 0.04 lb PE/ton iron produced is specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

b. Emission Limitation:

Visible emissions of particulate matter from the bin vent stack shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for this emissions unit shall be determined in accordance with test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(a) of OAC rule 3745-17-03.

c. Emission Limitation:

40 lbs VOC per day

Applicable Compliance Method:

To determine the actual emission rate for VOC, the following equation shall be used:

E = sand usage rate (in tons per day) X emission factor of 1.3 lb VOC/ton sand

where:

E = VOC emission rate (lbs/day); and

emission factor = 1.17 lb VOC/ton sand (resin) + 0.13 lb VOC/ton sand (core release) = 1.3 lbs VOC per ton of sand for phenolic urethane nobake binder system (based on emissions data obtained by the 1997 OCMA's study).

d. Emission Limitation:

8 lbs VOC per hour

Applicable Compliance Method:

If required, emission testing shall be performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A, as appropriate.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F008 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall

not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F010 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shakeout of nobake molds (shakeout conveyor exhaust drifts upward to roof vent)	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07

	(B) shall not apply to this emissions unit.
OAC rule 3745-31-05(A)(3) (PTI 02-3225)	Particulate emissions (PE) shall not exceed 4.16 lbs/hr and 18.2 tons per year. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/yr. (See A.I.2.a.)

2. **Additional Terms and Conditions**

a. No record keeping and monitoring are required for the VOC emission limits because the maximum uncontrolled emission rates of VOC cannot exceed the limits.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the tons of iron processed through the shakeout and the hours of operation of this emissions unit.

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

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

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

* Because this operation is performed infrequently and because the PTI did not require controls for this emissions unit, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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IV. **Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

18.2 tons of PE/year

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ti x 3.2 lbs PE/ton iron x 1/2000 lbs per ton

where:

E = tons PE per year; and

Ti = tons of iron per year processed through the shakeout.

The emission factor (3.2 lbs PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.10, Table 12.10-7 (1/95).

b. Emission Limitation:

4.16 lbs of PE/hr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ti x 3.2 lbs PE/ton iron

where:

E = lbs PE per hour; and

Ti = maximum tons of iron per hour processed through the shakeout.

The emission factor (3.2 lbs PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.10, Table 12.10-7 (1/95).

c. Emission Limitation:

8 lbs of VOC/hr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ti x 1.2 lbs VOC/ton iron

where:

E = lbs VOC emitted per hour; and

Ti = maximum tons of iron per hour processed through the shakeout.

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400331.

d. Emission Limitation:

40 lbs of VOC/day

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ti x 1.2 lbs VOC/ton iron

where:

E = lbs VOC emitted per day; and

Ti = maximum tons of iron per day processed through the shakeout.

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400331.

e. Emission Limitation:

7.3 tons of VOC/yr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

E = Ti x 1.2 lbs VOC/ton iron x 1/2000 (ton/pounds)

where:

E = tons VOC emitted per year; and

Ti = tons of iron per year processed through the shakeout.

The emission factor (1.2 lbs VOC/ton iron) is specified in US EPA reference document Factor

Information Retrieval Data System, Version 6.25, SCC 30400331.

f. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation for this emissions unit shall be determined in accordance with Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F010 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F013 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
green sand molding using the Osborn Inliner automatic molding machine	OAC rule 3745-21-07(G)	exempt (See A.I.2.a.)
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9754)	Particulate emissions (PE) shall not exceed 0.5 pound per hour. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G) and OAC rule 3745-17-07(B).

2. **Additional Terms and Conditions**

a. This emissions unit shall not employ liquid organic materials which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records for all materials used in this emissions unit:

a. the identification of the chemical compound and its physical state at standard conditions; and

b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall maintain daily records that document the average production rate, in tons of iron per hour.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or

absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive liquid organic materials were employed, an identification of said materials, and the number of pounds OC emitted each such day.

2. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the particulate emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.5 pound PE per hour

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum production rate (tons iron/hr) by the emission factor of 0.04 lb PE/ton iron.

The emission factor (0.04 lb PE/ton iron) is specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

If required, emission testing shall be performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

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Facility ID: 0285010001 Emissions Unit ID: F013 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F015 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
green sand molding using the Hunter molding machine (all emissions from this emissions unit are fugitive)	OAC rule 3745-21-07(G)(2)	exempt (See A.I.2.a.)
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07

	(B) shall not apply to this emissions unit.
OAC rule 3745-31-05(A)(3) (PTI 02-0374)	Particulate emissions (PE) shall not exceed 0.22 lb/hr. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 6 lbs/hr. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. **Additional Terms and Conditions**

a. This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records for all materials used in this emissions unit:

a. the identification of the chemical compound and its physical state at standard conditions; and

b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall maintain the following records each month for this emissions unit:

a. the company identification of the mold release used;

b. the total amount of mold release used, in gallons;

c. the VOC content of the mold release, in pounds of VOC/pound of mold release;

d. the number of hours of operation;

e. an estimate of the total VOC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c); and

f. an estimate of the average hourly VOC emission rate, calculated as (e/d).

3. The permittee shall maintain daily records of the amount of iron produced that will employ the molds from the Hunter mold line.

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

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

* Because this operation is performed infrequently, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive materials were employed.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly VOC emissions exceeded 6 pounds per hour, and the actual average hourly VOC emissions for each such month.

3. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive

particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.22 lb PE/hr

Applicable Compliance Method:

To determine the maximum PE, the following equation shall be used:

E = Ti x 0.04 lb PE/ton iron

where:

E = maximum lbs PE per hour;

Ti = maximum iron production rate for the Hunter mold line; and

0.04 lb PE/ton iron is an emission factor in lb PE per ton iron produced (specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980).

b. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

c. Emission Limitation:

6 lbs VOC/hr

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based on the record keeping requirements specified in section A.III.2 of these terms.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F015 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F016 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
pouring and cooling area for molds made on the Hunter molding machine (all emissions from this emissions unit are fugitive)	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule

	3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
OAC rule 3745-31-05(A)(3) (PTI 02-3225)	1.8 lbs particulate emissions (PE) per hour and 7.9 tons/yr; 0.56 lb volatile organic compounds (VOC) per hour and 2.5 tons/yr; 0.08 lb sulfur dioxide (SO2) per hour and 0.35 ton/yr Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in permit-to-install 02-13225, issued on September 1, 1999: A.III.2, A.III.3 and A.III.4. The monitoring and record keeping requirements contained in the above-referenced permit-to-install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the permit-to-install.

2. The permittee shall record each day the hours this emissions unit was operated.

3. At the end of each month, the permittee shall record the following information for each day to determine the emission rates of PE, VOC, and SO2:

   a. the total metal production, in tons;

   b. the hours this emissions unit was in operation;

   c. the amount of iron poured, in tons;

   d. the hourly PE rate, in lbs PE/hour, calculated as [(c) X 0.45 lb PE/ton iron poured] / (b);

   e. the hourly SO2 emission rate, in lbs SO2/hour, calculated as [(c) x 0.02 lb/ton iron poured]/(b); and

   f. the hourly VOC emission rate, in lbs VOC/hour, calculated as [(c) x 0.14 lbs/ton iron poured]/(b).

   0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036
   0.02 = emission factor in lb SO2/ton iron poured is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25 SCC 30400320
   0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320)

4. The permittee shall perform monthly* checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

   * Because this operation is performed infrequently, monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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IV. **Reporting Requirements**

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in permit-to-install 02-13225, issued on September 1,

1999: A.IV.2, A.IV.3, A.IV.4, A.IV.5 and A.IV.6. The reporting requirements contained in the above-referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly PE exceeded 1.8 pounds, and the actual average hourly PE for each such month.

3. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly VOC emissions exceeded 0.56 pound, and the actual average hourly VOC emissions for each such month.

4. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly SO2 emissions exceeded 0.08 pound, and the actual average hourly SO2 emissions for each such month.

5. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c. of this permit.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(b) of OAC rule 3745-17-03.

b. Emission Limitation:

1.8 lbs PE/hr

Applicable Compliance Method:

Compliance may be determined based upon the record keeping requirements specified in section A.III.3. If required, emission testing shall be performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

7.9 tons PE per year

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (1.8 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

0.56 lb VOC per hour

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.3.

e. Emission Limitation:

2.5 tons VOC per year

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.56 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by

2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

0.08 lbs SO2 per hour

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.3.

g. Emission Limitation:

0.35 tons SO2 per year

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable SO2 emission limitation (0.08 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F016 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F017 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
green sand molding using the Osborn 722 mold making system (all emissions from this emissions unit are fugitive)	OAC rule 3745-21-07(G)(2)	exempt (See A.I.2.a.)
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-0374)	Particulate emissions (PE) shall not exceed 0.40 lb/hr. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 13.5 lbs/hr, as an average over each day, and 22.5 tons/yr, as a rolling 12-month summation. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. **Additional Terms and Conditions**

a. This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

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II. **Operational Restrictions**

1. The amount of metal poured in the Osborn 722 mold making line shall not exceed 30,000 tons during each rolling, 12-month period.

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III. **Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-77-07 (A)(3)(a)(ii), the following record keeping requirements are as stringent as or more stringent than the record keeping requirements contained in permit-to-install 02-10374, issued on December 18,1996: A.III.2, A.III.3, A.III.4 and A.III.5. The reporting requirements contained in the above - referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

2. The permittee shall maintain the following records on all materials used in this emissions unit:

   a. the identification of the chemical compound and its physical state at standard conditions; and

   b. for any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

3. The permittee shall maintain the following records each month for this emissions unit:

   a. the company identification of the mold release used;

   b. the total amount of mold release used, in gallons;

   c. the VOC content of the mold release, in pounds of VOC/pound of mold release;

   d. the number of hours of operation;

   e. an estimate of the total VOC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c); and

   f. an estimate of the average hourly VOC emission rate, calculated as (e/d).

4. The permittee shall maintain monthly records that list the following information for this emissions unit:

   a. tons of iron poured;

   b. the rolling, 12-month summation of the tons of iron poured;

   c. the number of hours of operation for this emissions unit;

   d. the average hourly PE emissions, in lbs PE/hour, calculated as [(a) / (c)] x 0.04 lb PE/ton iron;

   e. the VOC emissions (tons); and

   f. the rolling, 12-month summation of the VOC emissions (tons).

   0.04 lb PE/ton iron is an emission factor in lbs PE per ton iron specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

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

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

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IV. **Reporting Requirements**

1. Pursuant to OAC rule 3745-77-07 (A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in permit-to-install 02-10374 modification, issued on December 18, 1996: A.IV.2, A.IV.3, A.IV.4, A.IV.5, A.IV.6 and A.IV.7. The reporting requirements contained in the above - referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive materials were employed.

3. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly VOC emission rate of 13.5 pounds was exceeded, and the actual average hourly VOC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation of 30,000 tons metal, and the actual rolling, 12-month production rate for each such exceedance.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month VOC emission limitation of 22.5 tons, and the actual rolling, 12-month VOC emission rate for each such exceedance.

6. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.40 lb PE/hr

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.4.d.

b. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

c. Emission Limitation:

13.5 lbs VOC/hr

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based on the record keeping requirements specified in section A.III.3 of these terms.

d. Emission Limitation:

22.5 tons VOC/yr, as a rolling 12-month summation

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based on the record keeping requirements specified in sections A.III.3 and A.III.4 of these terms. To determine the monthly VOC emission rate (tons), sum the daily VOC emission rate (lbs/day) for the entire month and divide by 2000 (lbs/ton).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F017 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F018 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
pouring and cooling area for the molds made on the Osborn 722 molding machine (all emissions from this emissions unit are fugitive)	OAC rule 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO2) shall not exceed 481.5 lbs/hr. (See A.I.2.a.)
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9748)	Particulate emissions (PE) shall not exceed 4.0 lbs/hr and 17.6 TPY. Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average. Emissions of volatile organic compounds (VOC) shall not exceed 20 lbs/day and 3.7 TPY. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-18-06(E)(2), and OAC rule 3745-21-07(G).

2. **Additional Terms and Conditions**

   a. No record keeping and monitoring is required for the SO2 emissions limit because the maximum uncontrolled emission rate of SO2 cannot exceed the limit.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall record daily the hours this emissions unit was operated.

2. At the end of each month, the permittee shall record the following information for each day to determine the emission rates of PE, VOC and SO2:

   a. the total metal production, in tons;

   b. the hours this emissions unit was in operation;

   c. the amount of iron poured, in tons;

   d. the hourly PE rate, in lbs PE/hour, calculated as [(c) X 0.45 lb PE/ton iron poured] / (b);

   e. the hourly SO2 emission rate, in lbs SO2/hour, calculated as [(c) x 0.02 lb/ton iron poured]/(b); and

   f. the daily VOC emission rate, in lbs VOC/day, calculated as [(c) x 0.14 lb/ton iron poured].

   0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036
   0.02 = emission factor in lb SO2/ton iron poured is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25 SCC 30400320
   0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the average hourly PE exceeded 4.0 pounds, and the actual average PE rate for each such month.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the daily VOC emissions exceeded 20 pounds, and the actual VOC emissions for each such month.

3. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

481.5 lbs SO2/hour

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.02 lb SO2/ton of iron by the maximum amount of metal that can be poured in an hour. 0.02 lb SO2/ton iron is the emission factor specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

b. Emission Limitation:

4.0 lbs PE/hr

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.2.

c. Emission Limitation:

Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(b) of OAC rule 3745-17-03.

d. Emission Limitation:

20 lbs VOC/day

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.2.

e. Emission Limitation:

17.5 tons PE per year

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.2.

To determine compliance, the following equation shall be used:

E = (I x 0.45) x 1/2000

where:

E = the tons PE emitted per year;
I = tons of iron poured per year; and
0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036).

f. Emission Limitation:

3.7 tons VOC per year

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.2.

To determine compliance the following equation shall be used:

E = I x 0.14 x 1/2000

where:

E = tons VOC emitted per year;
I = tons of iron poured per year; and
0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F018 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F019 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
phenolic urethane nobake core production (all emissions from this emissions unit are fugitive)	OAC rule 3745-21-07(G)(9)(i)	exempt, pursuant to OAC rule 3745-21-07(G)(9)(i) (See A.I.2.a.)
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9755)	Particulate emissions (PE) shall not exceed 0.75 lb/hr and 3.3 TPY. Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average. Emissions of volatile organic compounds (VOC) shall not exceed an average of 8 lbs/hr, as an average over each day, 40 lbs/day, and 7.3 TPY. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-07(G).

2. **Additional Terms and Conditions**

a. Although OAC rule 3745-21-07(G)(9)(i) specifies an exemption for the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by the Ohio EPA and became effective on June 15, 1999. The Ohio EPA has received confirmation from the USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the

effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records each day this emissions unit operates:

   a. the company identification of the liquid organic materials used;

   b. the amount of sand mixed, in pounds;

   c. the number of hours of operation;

   d. the VOC emission factor for the core release being employed, in lbs VOC/ton of sand;

   e. an estimate of the daily VOC emission rate, in pounds VOC/day, calculated as (b) x (1.17 + X* lb VOC/ton sand);

   f. an estimate of the average hourly VOC emission rate (pounds/hour), calculated as (e/c); and

   g. the average hourly PE emissions, in lbs PE/hour, calculated as (b) x 0.38 lb PE/ton sand / (c).

   0.38 lb PE/ton sand is the sum of two emission factors: core making (0.35) and mechanical core sand unloading (0.03), both specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

   *The emission factor for VOC = 1.17 lb VOC/ton sand (resin) + X lb VOC/ton sand (core release, where X is the emission factor for the core release being employed) = 1.17 + X lbs VOC per ton of sand for phenolic urethane nobake binder systems (based on emissions data obtained by the 1997 OCMA study).

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

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

   * Due to the nature of the operation of this unit (sand is combined with resin and catalyst additions yielding minimal or no visible emissions), monthly visible emission checks are deemed acceptable to ensure ongoing compliance with the particulate emission limitations.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly VOC emissions exceeded 8.0 pounds, and the actual average hourly VOC emissions for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the daily VOC emissions exceeded 40 pounds, and the actual daily VOC emissions for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly PE emissions exceeded 0.75 pound, and the actual average hourly PE emissions.

4. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.75 lb PE/hr

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.1.

b. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

c. Emission Limitation:

40 lbs VOC per day

Applicable Compliance Method:

Compliance is based upon the record keeping requirements specified in section A.III.1.

d. Emission Limitation:

8 lbs VOC per hour

Applicable Compliance Method:

Compliance is based on the record keeping requirements specified in section A.III.1 of these terms and conditions.

e. Emission Limitation:

3.3 TPY PE

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.1.

To determine compliance the following equation shall be used:

E = I x 0.38 x 1/2000

where:

E = tons PE emitted per year;
I = tons of sand used per year; and
0.38 lb PE/ton sand is the sum of two emission factors: core making (0.35) and mechanical core sand unloading (0.03), both specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980.

f. Emission Limitation:

7.3 TPY VOC

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements specified in section A.III.1.

To determine compliance the following equation shall be used:

E = I x 0.14 x 1/2000

where:

E = tons VOC emitted per year;
I = tons of sand poured per year; and
0.14 = emission factor in lbs VOC per ton sand poured (from SCC emission factor 30400320).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F019 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F020 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sandwich inoculation process for inliner controlled by a baghouse	OAC rule 3745-31-05(A)(3) (PTI 02-20474)	0.010 gr/dscf and 4.29 lbs/hr of particulate emissions (PE) from the baghouse serving this emissions 18.79 TPY of PE from the baghouse stack 15.77 TPY of fugitive emissions Visible particulate emissions from the baghouse stack shall not exceed five percent (5%) opacity, as a six-minute average. See section A.I.2.a.
	OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B), and 3745-17-11(B)	The requirements specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

a. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

b. The annual emission limitations above are based on the potential to emit for this unit. Therefore, no monitoring and record keeping requirements are necessary to demonstrate compliance with these limits.

c. This emissions unit is operationally united with P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine), and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column at all times while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.010 gr/dscf and 4.29 lbs/hr of PE from the baghouse serving this emissions unit

Applicable Compliance Method:

Compliance with the above PE limitations shall be determined by stack testing as specified in section A.V.2 of these terms and conditions.

The hourly limit of 4.29 pounds per hour is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 50,000 SCFM.

b. Emission Limitation:

18.79 TPY of PE from the baghouse stack

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (4.29 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

15.77 TPY of fugitive emissions

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation shall be determined using the following equation:

A = EF x P x (1 - CE) x 8,760 hrs/yr / 2,000 lbs/ton

where:

A = annual fugitive emission rate (TPY);
EF = Emission factor of 4 lbs/ton of iron processed from FIRE Version 6.25, SCC 3-04-003-10;
P = maximum hourly process weight rate (9 tons/hr); and
CE = estimated fractional capture efficiency (0.90).

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

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 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units P002, P012, P013, P026, and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F020 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F021 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sandwich inoculation process controlled by a baghouse	OAC rule 3745-31-05(A)(3) (PTI 02-20346)	0.010 gr/dscf and 6.0 lbs/hr of particulate emissions (PE) from the baghouse serving this emissions unit and emissions units P021, P039, and P902 26.28 TPY of PE from the baghouse stack 8.76 TPY of fugitive emissions Visible particulate emissions from the baghouse stack shall not exceed five percent (5%) opacity, as a six-minute average. See section A.I.2.a.
	OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B), and 3745-17-11(B)	The requirements specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

a. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

b. The annual emission limitations above are based on the potential to emit for this unit. Therefore, no monitoring and record keeping requirements are necessary to demonstrate compliance with these limits.

c. This emissions unit is operationally united with P021 (Tabor cut-off saw), P039 (Fischer Pushup/Punchout), and P902 (Back floor mold sand handling system); and all these emissions units are controlled by a common baghouse.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column at all times while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.010 gr/dscf and 6.0 lbs/hr of PE from the baghouse serving this emissions unit and emissions units P021, P039, and P902

Applicable Compliance Method:

Compliance with the above PE limitations shall be determined by stack testing as specified in section A.V.2 of these terms and conditions.

The hourly limit of 6.0 pounds per hour is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 70,000 SCFM.

b. Emission Limitation:

26.28 TPY of PE from the baghouse stack

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (6.0 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

8.76 TPY of fugitive emissions

Applicable Compliance Method:

Compliance with the annual fugitive emission limitation shall be determined using the following equation:

A = EF x P x (1 - CE) x 8,760 hrs/yr / 2,000 lbs/ton

where:

A = annual fugitive emission rate (TPY);
EF = Emission factor of 4 lbs/ton of iron processed from FIRE Version 6.25, SCC 3-04-003-10;
P = maximum hourly process weight rate (5 tons/hr); and

CE = estimated fractional capture efficiency (0.90).

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined in accordance with Method 9 of 40 CFR Part 60, Appendix A.

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 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units P021, P039, and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F021 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F022 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
five core sand silos with bucket elevator and belt transfer	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.

OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F022 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F023 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
loading and unloading sand and mold making (silos are vented through bin vents on silos)	OAC rule 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (A) shall not apply to this emissions unit.
	OAC rule 3745-17-11(A)	exempt (See A.I.2.a.)
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. In accordance with OAC 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to stack emissions from this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. In accordance with OAC 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

b. The PE from the silos shall be vented to the bin vents serving the silos.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F023 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F024 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fischer mold making line (all emissions from this emissions unit are fugitive)	OAC rule 3745-31-05(A)(3) (PTI 02-20457)	0.40 lb/hr of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM10) 7.40 lbs/hr of organic compounds (OC) Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average.
	OAC rule 3745-31-05(C) (PTI 02-20457)	0.38 TPY of PM/PM10 per rolling, 12-month period 3.70 TPY of OC per rolling, 12-month period
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)	This emissions unit is exempt from the requirements of this rule pursuant to OAC rule 3745-21-07(G)(9). See section A.I.2.a.

2. **Additional Terms and Conditions**

a. The permittee shall not employ any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.

b. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping/reporting requirements are necessary to determine compliance with these limits.

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II. **Operational Restrictions**

1. The maximum annual iron production for this emissions unit shall not exceed 19,000 TPY, based upon a rolling, 12-month summation. The maximum annual OC emissions shall not exceed 3.70 TPY, based upon a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information:

   a. the metal production rate for each month; and

   b. the rolling, 12-month summation of the metal production rates.

2. The permittee shall maintain monthly records of the following information:

   a. the name and identification of each liquid organic material employed in this emissions unit; and

   b. a determination whether the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

3. The permittee shall maintain the following records each month for this emissions unit:

   a. the company identification of the mold release used;

   b. the total amount of mold release used, in gallons;

   c. the OC content of the mold release, in pounds of OC/pound of mold release;

   d. the number of hours of operation;

   e. an estimate of the total OC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c);

   f. an estimate of the average hourly OC emission rate, calculated as (e/d); and

   g. the rolling, 12-month summation of OC emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month metal production rate restriction and of the rolling, 12-month OC emission limitation.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which a photochemically reactive material was employed.

3. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly OC emissions exceeded the emissions limitation of 7.40 pounds, and the actual average hourly OC emissions.

4. Quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors,

etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.40 lb/hr of PM/PM10

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.04 lb of PE/ton of iron specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980 and the maximum hourly production rate of 10 tons/hr.

b. Emission Limitation:

7.40 lbs/hr of OC

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping requirements specified in section A.III.3 of these terms and conditions.

c. Emission Limitation:

0.38 TPY of PM/PM10 per rolling, 12-month period
3.70 TPY of OC per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in sections A.V.1.a and A.V.1.b and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping in section A.III.1.

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F024 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: F025 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fischer Pour and Cool Line	OAC rule 3745-31-05(A)(3)	5.10 lbs/hr of particulate matter (PM)/particulate

(PTI 02-20457)	matter less than 10 microns in diameter (PM10) 1.40 lbs/hr of organic compounds (OC) 29.90 lbs/hr of carbon dioxide (CO) Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average.
OAC rule 3745-31-05(C) (PTI 02-20457)	4.85 TPY of PM/PM10 per rolling, 12-month period 1.33 TPY of OC per rolling, 12-month period 28.41 TPY of CO per rolling, 12-month period 1.21 TPY of total hazardous air pollutants (HAPs) per rolling, 12-month period
OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping/reporting requirements are necessary to determine compliance with these limits.

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II. **Operational Restrictions**

1. The production of ductile iron through in-mold inoculation shall not be performed in this emissions unit.

2. The maximum annual iron production for this emissions unit shall not exceed 19,000 TPY, based upon a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information:

a. the metal production rate for each month; and

b. the rolling, 12-month summation of the metal production rates.

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 19,000 tons of iron, and the actual rolling 12-month production rate.

2. Quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

5.10 lbs/hr of PM/PM10

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.45 lb per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036) and the maximum hourly production rate of 10 TPH.

b. Emission Limitation:

1.40 lbs/hr of OC

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 0.14 lb/ton from FIRE version 6.25 SCC 3-04-003-20 and the maximum hourly production rate of 10 TPH.

c. Emission Limitation:

29.90 lbs/hr of CO

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 2.99 lbs/ton from testing of a similar source at GM's Saginaw MI foundry and the maximum hourly production rate of 10 TPH.

d. Emission Limitation:

4.85 TPY of PM/PM10 per rolling, 12-month period
1.33 TPY of OC per rolling, 12-month period
28.41 TPY of CO per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in sections A.V.1.a through A.V.1.c and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping in section A.III.1.

e. Emission Limitation:

1.21 TPY of total HAPs per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitation was established by multiplying the maximum annual iron production rate of 19,000 tons by the emission factors below and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitation will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping in section A.III.1.

Emission Factors from "Foundry Process Emission Factors: Baseline Emissions from Automotive Foundries in Mexico," McClellan Air Force Base, California, January, 1999.

Acetaldehyde = 4.72E-03 lb/ton
AcetopheNone = 7.90E-04 lb/ton
Benzene = 4.88E-02 lb/ton
Cumene = 2.05E-04 lb/ton
Dibenzofurans = 5.39E-05 lb/ton
Ethylbenzene = 2.48E-03 lb/ton
Formaldehyde = 2.93E-03 lb/ton
Xylenes = 1.02E-02 lb/ton

Naphthalene = 4.14E-03 lb/ton
Nitrobenzene = 2.01E-05 lb/ton
o-Cresol = 1.52E-03 lb/ton
o-Xylenes = 5.20E-03 lb/ton
Phenol = 9.10E-03 lb/ton
Propanol = 5.68E-05 lb/ton
Styrene = 9.09E-04 lb/ton
Toluene = 2.59E-02 lb/ton
Antimony = 6.21E-05 lb/ton
Arsenic = 1.14E-05 lb/ton
Cadmium = 5.25E-05 lb/ton
Chromium = 3.79E-04 lb/ton
Cobalt = 5.30E-03 lb/ton
Lead = 4.80E-04 lb/ton
Manganese = 3.16E-03 lb/ton
Nickel = 4.32E-04 lb/ton
Selenium = 2.46E-05 lb/ton
Total HAPs = 0.127 lb/ton

f. Emission Limitation:

Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: F025 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P002 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
twelve 30" snag grinders used to grind iron castings, all of which shall be vented to a 50,000 acfm baghouse located in the cleaning room	OAC rule 3745-17-11(A)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026, and P040.
	OAC rule 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-0103)	The requirements established pursuant to OAC rule 3745-31-05(A)(3) for this emissions unit are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026, and P040.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P012 (Pangborn South Tumblast machine), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine), and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. PE emissions from all twelve 30" snag grinders shall be vented to the baghouse serving F020, P026, and P040.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

   The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      0.010 gr/dscf and 4.29 lbs/hr of PE from the baghouse serving emissions units F020, P026, and P040

      Applicable Compliance Method:

      Compliance shall be demonstrated by the emissions testing and procedures specified in section A.V.2 of these terms and conditions.

   b. Emission Limitation:

      Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed five percent (5%) opacity, as a six-minute average.

      Applicable Compliance Method:

      Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

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 12 months after issuance of the permit and within 12 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P012, P013, P026, and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P002 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P011 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
two holding furnaces	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P011 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P012 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
tumblast machine used to remove sand from the castings, and which is vented to a baghouse	OAC rule 3745-17-07(A)(1)	The requirements specified in OAC rule 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026, and P040. See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P013 (South Wheelabrator shotblast machine), P026 (North Wheelabrator shotblast machine), and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. PE from the tumblast machine shall be vented to the baghouse serving emissions units P026 and P040.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

   The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      0.010 gr/dscf and 4.29 lbs/hr of PE from the baghouse serving emissions units F020, P026, and P040.

      Applicable Compliance Method:

      Compliance shall be demonstrated by the emissions testing and procedures specified in section A.V.2 of these terms and conditions.

   b. Emission Limitation:

      Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed five percent (5%) opacity, as a six-minute average.

      Applicable Compliance Method:

      Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

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 12 months after issuance of the permit and within 12 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

   d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P013, P026, and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

   Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

   A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P012 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P013 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shotblast which is used to remove sand from the castings, equipped with a baghouse	OAC rule 3745-17-07(A)(1)	The requirements specified in OAC rule 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020, P026, and P040. See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P026 (North Wheelabrator shotblast machine) and P040 (Pangborn North tumble blast machine); and all these emissions units are controlled by a common baghouse.

b. PE from the shot blast machine shall be vented to the baghouse serving F020, P026, and P040.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall

cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      Visible particulate emissions from the baghouse serving emissions units F020 and P040 shall not exceed five percent (5%) opacity, as a six-minute average.

      Applicable Compliance Method:

      Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

   b. Emission Limitation:

      0.010 gr/dscf and 4.29 lbs/hr of PE from the baghouse serving emissions units F020, P026, and P040.

      Applicable Compliance Method:

      Compliance shall be demonstrated by the emissions testing and procedures specified in section A.V.2 of these terms and conditions.

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 12 months after issuance of the permit and within 12 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

   d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P012, P026, and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

   Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

   A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P013 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P017 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shakeout system serving the 722, Hunter, and Fischer mold lines, equipped with a baghouse	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. Because the baghouse was installed in 1997, this emissions unit continues to be considered as a fugitive dust source. OAC rules 3745-17-07(A) and 3745-17-11 are not applicable.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P017 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P021 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
three saws (two pre-1974 "old" and one post-1974 "new") used to remove the gating system from castings, equipped with a baghouse (70,000 cfm ETA Engineering)	OAC rule 3745-17-07(A)(1)	The requirements specified in OAC rule 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F021, P039, and P902.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
"new" saw used to remove the gating system from castings, equipped with a baghouse (70,000 cfm ETA Engineering)	OAC rule 3745-31-05(A)(3) (PTI 02-3070)	The requirements established pursuant to OAC rule 3745-31-05(A)(3) for this emissions unit are less stringent than the requirements established pursuant to

		OAC rule 3745-31-05(A)(3) for emissions units F021, P039, and P902.
two saws ("old") used to remove the gating system from castings, equipped with a baghouse (70,000 cfm ETA Engineering)	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F021, P039, and P902.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with F021 (sandwich inoculation process), P039 (Fischer Pushup/Punchout), and P902 (Back floor mold sand handling system); and all these emissions units are controlled by a common baghouse.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.010 gr/dscf and 6.0 lbs/hr of PE from the baghouse serving emissions units F021, P039, and P902.

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in section A.V.2 of these terms and conditions.

b. Emission Limitation:

Visible particulate emissions from the baghouse serving emissions units F021, P039, and P902 shall not exceed five percent (5%) opacity as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

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 12 months prior to permit expiration. (The last emissions testing on this emissions unit which demonstrated compliance was last conducted on April 4, 2001.)

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Method 9 readings shall be performed during each test run.

d. The test(s) shall be conducted while the emissions unit and emissions units F021, P039, and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P021 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P025 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
gas fired heater used to dry the scrap before it enters the melt furnaces-10 million BTU/hr	OAC rule 3745-17-11(A)	See A.I.2.a.
	OAC rule 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (A) shall not apply to this emissions unit.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. In accordance with OAC 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. In accordance with OAC 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P025 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P026 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shot blast machine used to remove sand from castings, equipped with a baghouse	OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3). (See A.I.2.a.)
	OAC rule 3745-17-07(A)	The requirements specified in OAC rule 3745-17-07 (A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3) for emissions units F020 and P040.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-1952)	Particulate emissions (PE) from the baghouse shall not exceed 0.010 gr/dscf of exhaust gases, 0.5 lb/hr and 2.2 tons/year. Fugitive particulate emissions shall not exceed 3.1 tons per year. Visible emissions of fugitive dust shall not exceed 20 percent opacity, as a 3-minute average.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with F020 (sandwich inoculation for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumblast machine), P013 (South Wheelabrator shotblast machine), P040 (Pangborn North tumble blast machine), and all these emissions units are controlled

by a common baghouse.

b. PE from this shot blast machine shall be vented to the baghouse serving F020, P026, and P040.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in permit-to-install 02-11952, issued on May 28, 1998: A.III.2, A.III.3 and A.III.4. The monitoring and record keeping requirements contained in the above-referenced permit-to-install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the permit-to-install.

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

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

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

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

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

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IV. **Reporting Requirements**

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in permit-to-install 02-11952, issued on May 28, 1998: A.IV.2, A.IV.3 and A.IV.4. The reporting requirements contained in the above-referenced permit-to-install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the permit-to-install.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

   The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit, and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in permit-to-install 02-11952, issued on May 28, 1998: A.V.2 and A.V.3. The testing requirements contained in the above-referenced permit-to-install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the permit-to-install.

2. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the baghouse serving F020 and P040 shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

b. Emission Limitation:

0.010 gr/dscf and 0.5 pound per hour from the baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by the emissions testing and procedures specified in section A.V.3 of these terms and conditions.

c. Emission Limitation:

2.2 tons per year of PE from the stack

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.5 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

3.1 tons per year of fugitive PE emissions

Applicable Compliance Method:

Compliance with this limit shall be based on the following equation:

E = Ti x 7 lbs PE/ton iron x (1-0.98) x 1tn/2000 lbs

where:

E = tons PE per year;

Ti = tons of iron processed per year; and

0.98 = the assumed overall control efficiency of the baghouse.

The emission factor of 7 lbs PE/ton iron was provided by the NEDO.

e. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

3. 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 12 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

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

emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F020, P002, P012, P013, and P040 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P026 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P027 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
green sand muller which makes mold sand for the Osborn Inliner molding system, equipped with a mechanically aided wet scrubber	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 10.38 pounds per hour. See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. The allowable PE rate is from Figure II and is based upon the uncontrolled mass rate of emissions (71.4 lbs/hr) as reported for the emissions test conducted on October 8, 2003.

b. PE from the muller shall be vented to the scrubber.

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II. **Operational Restrictions**

1. The pressure drop across the scrubber shall be maintained within the range of 2 to 6 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 122 gallons per minute at all times while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. the pressure drop across the scrubber, in inches of water, on a continuous basis;

   b. the scrubber water flow rate, in gallons per minute, once per operating shift; and

   c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water flow rate.

   The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

      Applicable Compliance Method:

      Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

   b. Emission Limitation:

      10.38 pounds of PE/hour

      Applicable Compliance Method:

      Compliance shall be demonstrated through emission testing and procedures specified in section A.V.2 of these terms and conditions.

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 12 months after issuance of this permit and within 12 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

   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 Ohio EPA Northeast District Office.

   A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR Part 60, Appendix A shall be employed.
   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

   Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the

emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P027 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P029 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
20-ton graphite rod holding furnace	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9649)	Fugitive particulate emissions (PE) shall not exceed 4.26 pounds per hour. Visible PE shall not exceed 20 percent opacity, as a three-minute average.

2. **Additional Terms and Conditions**

(a) None

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II. **Operational Restrictions**

1. This furnace shall not be used as a melting furnace. Prior to modifying this furnace in order to melt scrap, the permittee shall apply for and obtain a permit-to-install.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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IV. **Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

b. Emission Limitation:

4.26 lbs PE per hour

Applicable Compliance Method:

To determine the actual emission rate for fugitive particulates, the following equation may be used:

E = maximum iron throughput (in tons per hour) X 0.056 (lb/ton)

where:

E = PE (lbs/hr).

The emission factor (0.056 lb PE/ton iron) is specified in US EPA reference document AP-42, Compilation of Emission Factors, Section 12.5, Table 12.5-1 (1/95).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P029 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P030 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Laempe LL-5 core making process using a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst	OAC rule 3745-31-05(A)(3) (PTI 02-19387)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.
DMIPA is controlled by an acid scrubber.		Fugitive PE from this emissions unit shall not exceed 0.77 TPY.
		Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.96 lb/hr and 4.19 TPY.
		Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.
		Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.
	OAC rule 3745-17-11(B)(1)	The emission limitation established in this rule is less stringent than the limitation established pursuant to

	OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(A)(1)	The visible emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
OAC rule 3745-21-07(G)(2)	See A.2.a below.

2. **Additional Terms and Conditions**

a. This emissions unit is exempt from this rule as no photochemically reactive liquid organic materials are employed.

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II. **Operational Restrictions**

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. the pH of the scrubber liquor; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.

      Applicable Compliance Method:

      Compliance with the hourly and annual PE limitations shall be determined using an emission factor of

0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.77 TPY.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 0.96 lb/hr and 4.19 TPY.

Applicable Compliance Method:

The hourly and annual VOC emission limitations are based upon the potential to emit for this emissions unit and are based on the following emission factors and information:

Scrubber capture efficiency = 90% (catalyst gas only);
Scrubber control efficiency = 98% (catalyst gas only);
Overall removal efficiency = 88.2% (catalyst gas only);
Binder = 0.72 lb/ton (based on manufacturer supplied data);
Catalyst = 1.56 lbs/ton (based on man. supplied data and max. usage); and
Core release = 1.01 lbs/ton (based on man. supplied data and max. usage).

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P030 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

   1. None

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II. **Operational Restrictions**

   1. None

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III. **Monitoring and/or Record Keeping Requirements**

   1. None

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IV. **Reporting Requirements**

   1. None

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V. **Testing Requirements**

   1. None

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VI. **Miscellaneous Requirements**

   1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P031 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
South Laempe L-20 core making process using a binder system with n-dimethyl isoproylamine (DMIPA) catalyst	OAC rule 3745-31-05(A)(3) (PTI 02-20073)	Fugitive particulate emission (PE) from this emissions unit shall not exceed 0.70 TPY.

DMIPA is controlled by an acid scrubber.		Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 TPY. Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	exempt See A.I.2.a below.

2. **Additional Terms and Conditions**

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

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II. **Operational Restrictions**

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

2. In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tons per year, as a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day that this emissions unit operates:

   a. the pH of the scrubber liquor; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

   e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information:

   a. the total production rate, in terms of sand processed, in tons per month; and

   b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA

Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.70 TPY.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

b. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 TPY.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the operational and production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping in section A.III.3 of these terms and conditions.

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P031 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P032 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Laempe L-40 core making process using a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst DMIPA is controlled by an acid scrubber.	OAC rule 3745-31-05(A)(3) (PTI 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.03 TPY. Fugitive PE from this emissions unit shall not exceed 1.40 TPY. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 3.21 lbs/hr and 8.57

	TPY. Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.
OAC rule 3745-17-11(B)(1)	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(A)(1)	The visible emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
OAC rule 3745-21-07(G)	exempt See A.I.2.a below.

2. **Additional Terms and Conditions**

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

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II. **Operational Restrictions**

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

2. In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 8,000 tons per year, as a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day that this emissions unit operates:

   a. the pH of the scrubber liquor; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

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

3. The permittee shall maintain monthly records of the following information:

   a. the total production rate, in terms of sand processed, in tons per month; and

   b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.03 TPY.

Applicable Compliance Method:

Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 1.40 TPY.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 3.21 lbs/hr and 8.57 TPY.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 8,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping in section A.III.3 of these terms and conditions.

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P032 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Laempe L-40 core making process using a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst DMIPA is controlled by an acid scrubber.	Air Toxics Policy	See section B.VI.1 below.

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 ton per year of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").

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Facility ID: 0285010001 Emissions Unit ID: P033 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
East Laempe L-20 core making process using binder system with methyl formate catalyst and modified to also use binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst	OAC rule 3745-31-05(A)(3) (PTI 02-20394)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.02 TPY. Fugitive PE from this emissions unit shall not exceed 0.70 TPY. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 24.42 lbs/hr and 24.42 TPY. Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.
	OAC rule 3745-31-05(C) (PTI 02-20394)	24.42 tons of VOC per rolling, 12-month period 5.60 tons of hazardous air pollutants (HAPs) per rolling, 12-month period 0.72 TPY of particulate matter less than 10 microns in diameter (PM-10) per rolling, 12-month period
	OAC rule 3745-17-11(B)(1)	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. **Additional Terms and Conditions**

a. This emissions unit is exempt from this rule while using the methyl formate catalyst system or the DMIPA catalyst system as no photochemically reactive liquid organic materials are employed.

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II. **Operational Restrictions**

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

2. Annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tons per year, based on a rolling, 12-month summation of the monthly production rates.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day that the DMIPA catalyst system is used:

   a. the pH of the scrubber liquor; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

   e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information:

   a. the total production rate, in terms of sand processed, in tons per month; and

   b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      PE from all stacks associated with this emissions unit shall not exceed 0.02 lb/hr and 0.02 TPY.

      Applicable Compliance Method:

      Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

   b. Emission Limitation:

      Fugitive PE from this emissions unit shall not exceed 0.70 TPY.

      Applicable Compliance Method:

      Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for

Fugitive Dust Sources," dated September, 1980.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 24.42 lbs/hr and 24.42 TPY.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping in section A.III.3 of these terms and conditions.

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

f. Emission Limitations:

24.42 tons of VOC per rolling, 12-month period; 5.60 tons of HAPs per rolling, 12-month period; and 0.72 TPY of PM-10 per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitations were established using the maximum annual production rate of 4,000 tons and the following emission factors:

12.21 lbs of VOC/ton of sand (supplied by manufacturer's of catalyst, core release and binder)

2.8 lbs of HAPs (methanol)/ton of sand (supplied by manufacturer of catalyst)

0.35 lb/ton of PM10, from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 (core making)

0.72 lb/ton of PM10, from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01. (sand transfer used in conjunction with a 99% control efficiency for fabric filter.

Therefore, provided compliance is shown with this annual production restriction, compliance with the emission limitations will be assumed. Compliance with the annual production restriction shall be demonstrated by the monitoring and record keeping in section A.III.3 of this permit.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P033 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
East Laempe L-20 core making process using binder system with methyl formate catalyst and modified to also use binder system with DMIPA catalyst	none	none

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was performed and the predicted 1-hour maximum ground-level concentration was less than 80 percent of the MAGLC. Therefore, the air toxic demonstration is not part of this final permit. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any air toxic to increase may require the permittee to apply for and obtain a new permit to install.

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Facility ID: 0285010001 Emissions Unit ID: P034 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
West Laempe L-20 core making process using a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst	OAC rule 3745-31-05(A)(3) (PTI 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.
DMIPA is controlled by an acid scrubber and the sand hopper vent is controlled by a fabric filter.		Fugitive PE from this emissions unit shall not exceed 0.70 TPY.
		Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.72 lbs/hr and 4.28 TPY.
		Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.
		Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.
	OAC rule 3745-17-11(B)(1)	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-21-07(G)(2)	exempt
		See A.I.2.a below.

2. **Additional Terms and Conditions**

a. The permittee shall not employ any photochemically reactive liquid organic materials in this emissions unit.

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II. **Operational Restrictions**

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

2. In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 4,000 tons per year, as a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the pH of the scrubber liquor; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubber serving this emissions unit, the bin

vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

3. The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month; and

b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.

Applicable Compliance Method:

Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lb/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.70 TPY.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 1.72 lb/hr and 4.28 TPY.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 4,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping in section A.III.3 of these terms and conditions.

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of

40 CFR Part 60, Appendix A.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission observations recorded at fifteen-second intervals.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P034 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
West Laempe L-20 core making process using a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst DMIPA is controlled by an acid scrubber and the sand hopper vent is controlled by a fabric filter.	Air Toxics Policy	See section B.VI. below.

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 ton per year of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").

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Facility ID: 0285010001 Emissions Unit ID: P036 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
pouring and cooling area for the molds made on the Osborn Inliner automatic molding machine	OAC rule 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO2) shall not exceed 782 pounds per hour. (See A.I.2.c.)
	OAC rule 3745-17-07(A)	In accordance with paragraph (A)(3)(h) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (A) shall not apply to this emissions unit.
	OAC rule 3745-17-11(B)(1)	See A.I.2.a.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-9754)	Fugitive and stack particulate emissions (PE), combined, shall not exceed 9.9 pounds per hour. Visible fugitive and/or stack particulate emissions shall not exceed 20 percent opacity, as a six-minute average. Fugitive and stack volatile organic compound (VOC) emissions, combined, shall not exceed 2.8 pounds per hour. See A.I.2.b. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-18-06(E)(2).

2. **Additional Terms and Conditions**

a. In accordance with OAC 3745-17-11(A)(2)(a)(ii), "Figure II" of OAC rule 3745-17-11 shall not apply to this emissions unit because the uncontrolled particulate emissions are less than 10 pounds per hour. Based on the results of emissions testing conducted on January 18, 1996 and a maximum iron pour rate of 20 tons per hour, the maximum uncontrolled particulate matter emission rate is 9 pounds per hour. In accordance with OAC 3745-17-11(A)(2)(b)(ii), "Table I" of OAC rule 3745-17-11 shall not apply to this emissions unit because it is located in Wayne County.

b. The pouring and cooling emissions are captured in hooding and vented outside the building through six (6) stacks. The collection efficiency of the capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The permittee shall maintain all hood and enclosures in good operating condition. Additional capture hooding or enclosures shall be installed if required by the Ohio EPA.

c. No record keeping and monitoring is required for the SO2 emission limit because the maximum uncontrolled emission rate of SO2 cannot exceed the limit.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. At the end of each month, the permittee shall record the following information for each day to determine the emission rates of PE, VOC, and SO2:

   a. the total metal production, in tons;

   b. the hours this emissions unit was in operation;

   c. the amount of iron poured, in tons;

   d. the hourly PE rate, in lbs PE/hour, calculated as [(c) X 0.45 lb PE/ton iron poured] / (b);

   e. the hourly SO2 emission rate, in lbs SO2/hour, calculated as [(c) x 0.02 lb/ton iron poured]/(b); and

   f. the hourly VOC emission rate, in lbs VOC/hour, calculated as [(c) x 0.14 lbs/ton iron poured]/(b).

   0.45 = emission factor in lbs PE per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036
   0.02 = emission factor in lb SO2/ton iron poured is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25 SCC 30400320
   0.14 = emission factor in lbs VOC per ton iron poured (from SCC emission factor 30400320)

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

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

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

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

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

   If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the

emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly VOC emissions exceeded 2.8 pounds per hour, and the actual average hourly VOC emissions for each such day.

2. The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

782 lbs of SO2/hr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following methods:

Compliance shall be demonstrated by multiplying the maximum production rate (tons iron/hour) by 0.02 lb SO2/ton iron.

The emission factor (0.02 lb SO2/ton iron) is specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

b. Emission Limitation:

Visible fugitive and/or stack particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

c. Emission Limitation:

2.8 lbs of VOC/hr

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in section A.III.1.

To determine the actual daily emission rate for VOC, the following equation shall be used:

E = daily iron production rate (in tons per day) X 0.14 lb VOC/ton iron

where:

E = VOC emission rate (lbs/day); and

0.14 lb VOC/ton iron is an emission factor specified in US EPA reference document Factor Information Retrieval Data System, Version 6.25, SCC 30400320.

d. Emission Limitation:

9.9 lbs of PE/hr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following methods:

Compliance may be demonstrated by multiplying the maximum production rate (tons iron/hour) by 0.45 lb PE/ton iron.

The emission factor (0.45 lb PE/ton iron) was determined during a December 12, 1995, emissions test of 5 of the 6 stacks at the facility.

Compliance with the PE limitation of 9.9 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10), if required.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P036 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P039 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fischer Pushup/Punchout, vented to a baghouse	OAC rule 3745-31-05(A)(3) (PTI 02-20457)	0.010 gr/dscf, 6.0 lbs/hr of particulate matter (PM)/particulate matter less than 10 microns in diameter (PM10) from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902. 0.30 TPY of fugitive PM emissions 0.21 TPY of fugitive PM10 emissions 12.00 lbs/hr of organic compounds (OC) 10.00 lbs/hr of carbon dioxide (CO) Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average. Visible PE from the baghouse stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.
	OAC rule 3745-31-05(C) (PTI 02-20457)	26.28 TPY of PM/PM10 per rolling, 12-month period from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902. 0.21 TPY of PM10 per rolling, 12-month period (fugitive) 11.40 TPY of OC per rolling, 12-month period 9.50 TPY of CO per rolling, 12-month period
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-11(B)	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	The visible emission limitation specified in this rule is

less stringent that the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping/reporting requirements are necessary to determine compliance with these limits.

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II. **Operational Restrictions**

1. The maximum annual iron production for this emissions unit shall not exceed 19,000 TPY, based upon a rolling, 12-month summation of the production rates.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information:

a. the metal production rate for each month; and

b. the rolling, 12-month summation of the metal production rates.

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

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

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

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 19,000 tons of iron, and the actual rolling, 12-month production rate.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

3. Quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any

corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.010 gr/dscf, 6.0 lbs/hr of PM/PM10 from the baghouse stack serving this emissions unit and emissions units F021, P021, and P902.

Applicable Compliance Method:

Compliance with the hourly and grain loading emission limits shall be determined by stack testing as specified in section A.V.2 of these terms and conditions.

The hourly limit of 6.0 lbs/hr is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 70,000 scfm.

b. Emission Limitation:

0.30 TPY of fugitive PM and 0.21 TPY of fugitive PM10

Applicable Compliance Method:

Compliance with the annual fugitive emission limitations shall be determined using the following equation:

A = EF x P x (1 - CE) x / 2,000 lbs/ton

where:

A = annual fugitive emission rate (TPY);
EF = emission factor of 3.20 lbs of PM/ton from FIRE ver 6.25 SCC 3-04-003-31;
= emission factor of 2.24 lbs of PM10/ton from FIRE ver 6.25 SCC 3-04-003-31;
P = maximum annual process weight rate (19,000 TPY); and
CE = fractional capture efficiency of baghouse = 0.99.

c. Emission Limitation:

12.00 lbs/hr of OC

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 1.20 lbs/ton from FIRE version 6.25 SCC 3-04-003-31 and the maximum hourly production rate of 10 TPH.

d. Emission Limitation:

10.00 lbs/hr TPY of CO

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined using an emission factor of 1.00 lb/ton from Waupaca foundry RBLC determination in Indiana and the maximum hourly production rate of 10 TPH.

e. Emission Limitation:

26.28 TPY of PM/PM10 per rolling, 12-month period from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902.

Applicable Compliance Method:

The annual emission limitation was established using the allowable grain loading limit for the baghouse stack (0.010 gr/dscf), the baghouse flow rate 70,000 scfm and potential operating hours of 8,760 hrs/yr. Therefore, compliance with the annual limit is assumed, as long as compliance with the grain loading limit is maintained.

f. Emission Limitation:

0.21 TPY of PM10 per rolling, 12-month period (fugitive)
11.40 TPY of OC per rolling, 12-month period
9.50 TPY of CO per rolling, 12-month period

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 19,000 tons by the respective emission factors referenced in sections A.V.1.a through A.V.1.c and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping in section A.III.1.

g. Emission Limitation:

Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

h. Emission Limitation:

Visible PE from the baghouse stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A.

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 12 months of expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and emissions units F021, P021 and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P039 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P040 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Pangborn North tumble blast machine used to clean sand from iron castings with steel shot, controlled by a baghouse	OAC rule 3745-31-05(A)(3) (PTI 02-22041)	0.010 grain of particulate emissions (PE) per dry standard cubic foot of total exhaust gases (0.64 lb/hr and 2.80 TPY) Visible PE from the stack of the baghouse serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average. Emissions of fugitive dust shall not exceed 1.04 TPY. Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a three-minute average.
	OAC rules 3745-17-07(A) and 3745-17-11(B)	See section A.I.2.a.
	OAC rule 3745-17-07(B)	See section A.I.2.b.
	OAC rule 3745-17-08(B)	See section A.I.2.c.

2. **Additional Terms and Conditions**

a. The emission limitations specified in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

b. In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

c. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.

d. This emissions unit is operationally united with F020 (sandwich inoculation process for inliner), P002 (twelve snag grinders), P012 (Pangborn South tumble blast machine), P013 (South Wheelabrator shotblast machine), and P026 (North Wheelabrator) and all these emissions units are controlled by a common baghouse.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

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

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.010 grain of PE per dry standard cubic foot of total exhaust gases (0.64 lb/hr and 2.80 TPY)

Applicable Compliance Method:

Compliance with the grain loading limit and hourly limit above shall be determined through stack testing as specified in section A.V.2.

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.64 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

b. Emission Limitation:

Emissions of fugitive dust shall not exceed 1.04 TPY.

Applicable Compliance Method:

The annual emission limitation above was created using the following equation:

E = PWR x EF x (1 - CE) x (1 - BCE) x (8,760 hrs/yr) / (2,000 lbs/ton)

where:

E = hourly fugitive dust emission rate (lbs/hr);
PWR = maximum hourly process weight rate (10 tons/hr);
EF = emission factor of 7.0 lbs/ton of material processed per 11/97 stack test;
CE = fractional capture efficiency (0.99); and
BCE = fractional building capture efficiency (0.66, based on AP-42, Section 12.10 "Gray Iron Foundries" Background Document).

c. Emission Limitation:

Visible PE from the stack of the baghouse serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed five percent (5%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

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 in accordance with the terms and conditions of the Title V permit. This unit shall be operating during the testing of the baghouse required in the Title V permit for emissions units P002, P012, P013 and P026.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limits for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.

d. The test(s) shall be conducted while this emissions unit and P002, P012, P013 and P026 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast

District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Issuance type: Title V Preliminary Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P901 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shakeout for the Osborn Inliner automatic molding machine	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) from the wet scrubber and the stack serving the cooling conveyor combined shall not exceed 59.5 pounds per hour. (See A.I.2.a and A.I.2.b.)
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with P903 (Inliner shakeout sand recycle system) and is controlled by a common wet scrubber. The allowable emission rate from the wet scrubber was determined by using Figure II and an uncontrolled emission rate of 734 pounds per hour of particulate emissions, as determined in an October 8, 2003, emissions test.

b. PE from the punchout, scalping conveyor, and shakeout deck shall be vented to the mechanically aided wet scrubber. (The cooling conveyor exhaust stack is not controlled.)

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II. **Operational Restrictions**

1. The pressure drop across the scrubber shall be continuously maintained with a minimum of 2 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 122 gallons per minute at all times while the emissions unit is in operation.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop

across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the pressure drop across the scrubber, in inches of water, on a continuous basis;

b. the scrubber water flow rate, in gallons per minute, once per operating shift; and

c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

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

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

b. Emission Limitation:

59.5 lbs of PE/hr

Applicable Compliance Method:

Compliance with the PE limitation shall be determined in accordance with OAC rule 3745-17-03(B)(10).

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 for all stacks serving this emissions unit within 12 months after

issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A and US EPA Method 9 readings of the stacks during each testing run.

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 Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P901 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: P902 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
back floor sand reclaim system and muller, equipped with a baghouse	OAC rule 3745-17-11(B)	The requirements of OAC rule 3745-17-11(B) are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	The requirements established pursuant to OAC rule 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A) (3).
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.
	OAC rule 3745-31-05(A)(3) (PTI 02-2565)	Particulate emissions (PE) shall not exceed 0.010 gr/dscf of exhaust gases and 3.49 pounds per hour and 6.99 tons per year from the baghouse. Fugitive emissions shall not exceed 6.48 tons per year of PM and 0.97 ton per year of PM-10. Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average from the baghouse. See A.I.2.a, A.I.2.b and A.I.2.c.

2. **Additional Terms and Conditions**

a. All sand processing equipment shall be fully enclosed and shall be exhausted to the baghouse. This shall include the rotary screen, the sand cooler and cyclone, and the return sand storage silo.

b. All material handling equipment, except the final belt conveyor, shall be covered and shall be exhausted

to the baghouse. This shall include the belt conveyor from the existing shakeout, the transfer point at the cross magnetic belt conveyor, the belt conveyors to the sand cooler, and the vibrating feed conveyor. The final belt conveyor to the existing sand muller shall be enclosed at the head and tail end and shall be exhausted to the baghouse.

c. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

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II. **Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

2. The maximum annual production rate for this emissions unit shall not exceed 360,000 tons of sand, based upon a rolling, 12-month summation.

3. The maximum annual operating hours for this emissions unit shall not exceed 4,000, based upon a rolling, 12-month summation.

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III. **Monitoring and/or Record Keeping Requirements**

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

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

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

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

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

4. The permittee shall maintain monthly records of the following information:

   a. the sand throughput rate, in tons;

   b. the rolling, 12-month summation of the sand throughput rates;

   c. the number of hours of operation; and

   d. the rolling, 12-month summation of the hours of operation.

5. To determine compliance with the annual fugitive PE and PM-10 limitations, the permittee shall record the amount of sand handled by this emissions unit, in tons, on a monthly basis.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

   The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports that identify each month the rolling, 12-month production rate and/or operating hours limitation(s) was (were) exceeded.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible

particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

5. The permittee shall submit annual reports that specify the total PM, PM10, OC and CO emissions from emissions units F024, F025, P039 and P902, combined, for the previous calendar year. These reports shall be submitted by January 31 of each year.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions shall not exceed five percent (5%) opacity, as a six-minute average.

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method:

Reference Method 9, if requested, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

b. Emission Limitation:

0.01 gr/dscf and 3.49 pounds PE per hour from the baghouse stack

Applicable Compliance Method:

Compliance shall be demonstrated by the emission testing and procedures specified in section A.V.2 of these terms and conditions.

The hourly limit of 3.49 pounds per hour is based on a grain loading limit of 0.01 gr/dscf and the gas flow rate from this emissions unit of 40,750 SCFM.

c. Emission Limitation:

6.99 tons per year of PE from baghouse stack

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (3.49 lbs/hr) by the restricted annual hours of operation (4,000 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation and the restricted annual hours of operation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

6.48 tons of PE/yr of fugitive emissions

Applicable Compliance Method:

Compliance with the fugitive PE emission limit shall be determined in accordance with the following equation:

E = Ts x 3.6 (lbs PM/ton sand) x (1-0.99) x 1/2000 (ton/pounds)

where:

E = tons PM emitted per year;

Ts = actual amount of sand processed per year (tons);

3.6 lbs PE/ton sand is the emission factor from AP-42 Table 12.10-7 (1/95 update), for sand handling; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

e. Emission Limitation:

0.97 ton of PM-10/yr of fugitive emissions

Applicable Compliance Method:

Compliance with the fugitive PM-10 emission limit shall be determined in accordance with the following equation:

E = Ts x 0.54 (lbs PM-10/ton sand) x (1-0.99) x 1/2000 (ton/pounds)

where:

E = tons PM-10 emitted per year;

Ts = actual amount of sand processed per year (tons);

0.54 lb PM-10/ton sand is an emission factor submitted in the application for PTI 02-11040 and is based on U.S. EPA document "PM-10 Emission Factor Listing Developed by Technology Transfer, 3-04-003-50"; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

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 12 months prior to permit expiration. (The last emissions testing on this emissions unit which demonstrated compliance was last conducted on April 4, 2001.)

b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A and US EPA Method 9 readings for each sampling run.

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 Ohio EPA Northeast District Office.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date (s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P902 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P903 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Sand system which is used to return sand from shakeout to recycle silos.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08 (B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule

3745-17-07, the requirements of OAC rule 3745-17-07 (B) shall not apply to this emissions unit.

2. **Additional Terms and Conditions**

a. This emissions unit is operationally united with emissions unit P901 (Inliner shakeout) and is controlled by a common wet scrubber. The controls for emissions unit P903 were not employed until 1994 and there were no stack emissions prior to that time. Therefore, this emissions unit continues to be a fugitive dust source, and OAC rules 3745-17-07 (A) and 3745-17-11 are not applicable.

b. PE from the belt transfer 7 to 8, belt transfer 8 to 8A, belt transfer 8A to rotary screen, and the rotary screen shall continue to be vented to an air pollution control device.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: P903 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0285010001 Emissions Unit ID: R001 Issuance type: Title V Preliminary Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core wash process using isopropyl alcohol-based material to wash cores made with any core line	OAC rule 3745-31-05(A)(3) (PTI 02-21651)	25.16 lbs of volatile organic compounds (VOC)/hr 7.53 lbs of particulate emissions (PE)/particulate emissions less than 10 microns in diameter (PM-10)/hr Visible emissions of fugitive dust from this emissions unit shall not exceed zero percent (0%) opacity, as a three-minute average. The requirements of this rule shall also include compliance with OAC rule 3745-31-05(C). See section A.I.2.a.
	OAC rule 3745-31-05(C) (PTI 02-21651)	25.19 TPY of VOC as a rolling, 12-month summation

	7.54 TPY of PE/PM-10 as a rolling, 12-month summation
OAC rule 3745-21-07(G)(2)	This emissions unit is exempt from the requirements of this rule as long as no photochemically reactive materials are employed.
OAC rule 3745-17-07(B) and 3745-17-08(B)	The requirements in these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

a. The permittee shall employ best available control measures consisting of normal operation and maintenance to ensure compliance with the opacity limitation specified above. If at any time compliance with the opacity limitation is not maintained, the permittee shall employ additional control measures.

b. The hourly emission limitations specified above represent the potential to emit for this emissions unit. Therefore, no record keeping or reporting requirements are specified to demonstrate ongoing compliance with these limits.

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II. **Operational Restrictions**

1. Annual material throughput for this emissions unit, in terms of core wash and core wash thinner employed, shall not exceed 5,988 gallons per year and 2,342 gallons per year, respectively. This material throughput restriction shall be based on a rolling, 12-month summation of the monthly production rates.

2. The permittee shall employ core wash with no greater than 5.80 lbs of VOC/gallon and no more than 4.20 lbs of solids/gallon.

3. The permittee shall employ core wash thinner with no greater than 6.68 lbs of VOC/gallon.

4. The permittee shall employ no photochemically reactive materials in this emissions unit, as defined in OAC rule 3745-21-01.

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III. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following monthly records for this emissions unit:

a. the name and identification number of each material employed;

b. an indication of whether or not each material is a photochemically reactive material as defined in OAC rule 3745-21-01;

c. the VOC content in lbs/gallon of each material employed;

d. the solids content in lbs/gallon of each material employed;

e. the number of gallons of each material employed in this emissions unit; and

f. the rolling, 12-month summations of the monthly total material throughput rate, in terms of core wash employed and core wash thinner employed.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

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

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IV. **Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month material throughput restrictions.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.

3. The permittee shall submit deviation (excursion) reports that identify all periods of time when photochemically reactive materials were used in this emissions unit.

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V. **Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

25.16 lbs of VOC/hr

Applicable Compliance Method:

Compliance with the hourly VOC limit shall be determined using the equation below. The record keeping requirements in section A.III.1 shall be used to determine compliance with the maximum VOC content restrictions.

E = [(HCW) x (VCW)] + [(HCWT) x (VCWT)]

where:

E = hourly emission rate;
HCW = maximum hourly core wash usage rate (2.99 gals/hr);
VCW = maximum core wash VOC content (5.80 lbs VOC/gal);
HCWT = maximum hourly core wash thinner usage rate (1.17 gals/hr); and
VCWT = maximum core wash thinner VOC content (6.68 lbs VOC/gal).

b. Emission Limitation:

7.53 lbs of PE/PM-10/hr

Applicable Compliance Method:

Compliance with the hourly PE/PM-10 limit shall be determined using the equation below. The record keeping requirements in section A.III.1 shall be used to determine compliance with the maximum solids content restriction.

E = (HCW) x (SCW) x (1 - TE)

where:

E = hourly emission rate;
HCW = maximum hourly core wash usage rate (2.99 gals/hr);
SCW = maximum solids content of core wash (4.20 lbs/gal); and
TE = fractional transfer efficiency if applied using spray technique (0.40).

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed zero percent (0%) opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR Part 60, Appendix A, with the modification described in OAC rule 3745-17-03(B)(3)(a).

d. Emission Limitations:

25.19 TPY of VOC as a rolling, 12-month summation
7.54 TPY of PE/PM-10 as a rolling, 12-month summation

Applicable Compliance Method:

Compliance with the annual emission limitations shall be determined by the record keeping requirements specified in section A.III.1. As long as compliance with the material throughput restrictions is maintained,

compliance with the annual limits will be assumed.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0285010001 Emissions Unit ID: R001 Issuance type: Title V Preliminary Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core wash process using isopropyl alcohol-based material to wash cores made with any core line	none	none

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was performed and the predicted

1-hour maximum ground-level concentration was less than 80 percent of the MAGLC. Therefore, the air toxic demonstration is not part of this final permit. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any air toxic to increase may require the permittee to apply for and obtain a new permit to install.