

Facility ID: 0773010180 Issuance type: Final State Permit To Operate

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 II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit F004](#)
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Facility ID: 0773010180 Emissions Unit ID: F004 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F004: charge handling controlled with a partial enclosure	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Fugitive particulate emissions shall not exceed 0.99 pound per hour.
	OAC rule 3745-35-07	Visible fugitive particulate emissions shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-07(B)	Fugitive particulate emissions shall not exceed 1.2 tons per rolling, 12-month period.
	OAC rule 3745-17-08(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e). The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The hourly fugitive particulate emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

**B. Operational Restrictions**

1. The maximum annual charge rate for this emissions unit shall not exceed 80,000 tons, based upon a rolling, 12-month summation of the tons of scrap metal charged per month.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.

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

1. The permittee shall maintain monthly records of the following information:
  - a. the quantity of metal charged, in tons; and
  - b. the rolling, 12-month summation of tons of metal charged.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. 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 # 07-00487, issued on 7/13/00: C.1 and C.2. 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.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitations of the production rate and operating hours.
2. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
3. 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 #07-00487, issued on 7/13/00: D.1 and D.2. 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.

**E. Testing Requirements**

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

Emission Limitation:

Fugitive particulate emissions shall not exceed 0.99 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum tons of metal charged per hour (33 tph) by the emission factor of 0.03 pound per ton (AP-42, Section 13.2.4, dated 1/95).

Emission Limitation:

Fugitive particulate emissions shall not exceed 1.2 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum tons of metal charged per year (80,000 tpy) by the emission factor of 0.03 pound per ton (AP-42, Section 13.2.4, dated 1/95), and then dividing by 2,000 pounds/ton.

Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.
2. 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 #07-00487, issued on 7/13/00: E.1. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

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Facility ID: 0773010180 Emissions Unit ID: P005 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005: stand grinders controlled with the finishing melt dust collector (FMDC)	OAC rule 3745-31-05(A)(3) (PTI 07-00425)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  There shall be no visible particulate fugitive emissions.  There shall be no visible particulate emissions from the baghouse stack.
	OAC rule 3745-35-07	Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.
	OAC rule 3745-17-07(A)	See section A.2.d below.
	OAC rule 3745-17-11(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below.
OAC rule 3745-17-08(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(1)(e).  The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).	

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional sources are vented to the FMDC baghouse, the dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.  
  
The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.  
  
The permittee reserves the right to direct the particulate emissions from any other existing or new emissions unit (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions shall not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.  
  
This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.  
The stand grinder's collection hooding shall have a collection efficiency sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the points of capture to the extent possible with good engineering design.  
Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based on a rolling, 12-month summation of operating hours.
3. Any sources venting to the FMDC, SSSC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P903, P906, P908, P009,

P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the sources vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00425, issued on 3/21/02: C.1, C.2, C.3 and C.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.

**D. Reporting Requirements**

1. The permittee shall submit quarterly 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 quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
6. 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 #07-00425, issued on 3/21/02: D.1, D.2, D.3 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2

Emission Limitation:

There shall be no visible particulate fugitive emissions.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

There shall be no visible particulate emissions from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic foot of exhaust gases, divided by 7,000 grains per pound, times the annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.

Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00425, issued on 3/21/02: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

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Facility ID: 0773010180 Emissions Unit ID: P009 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P009: #1 shotblaster controlled with the finishing melt dust collector (FMDC)	OAC rule 3745-31-05(A)(3) (PTI 07-00425)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  There shall be no visible fugitive particulate emissions.  There shall be no visible particulate emissions from the baghouse stack.
	OAC rule 3745-35-07	There shall be no visible particulate emissions from building openings (roof vents, doors, etc.). Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.
	OAC rule 3745-17-07(A)	See section A.2.d below.
	OAC rule 3745-17-11(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below.
	OAC rule 3745-17-08(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).  The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
If any additional sources are vented to the FMDC baghouse, the dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.  
  
The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.  
  
The permittee reserves the right to direct the particulate emissions from any other existing or new emissions unit (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions shall not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.  
  
This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.  
The shotblaster #1 collection hooding shall have a collection efficiency sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the points of capture to the extent possible with good engineering design.  
Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.

2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. Any sources venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P903, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the sources vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00425, issued on 3/21/02: C.1, C.2, C.3 and C.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.

**D. Reporting Requirements**

1. The permittee shall submit quarterly 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 deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
6. 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 #07-00425, issued on 3/21/02: D.1, D.2, D.3 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

**Applicable Compliance Method:**

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC

**Applicable Compliance Method:**

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic foot of exhaust gases, divided by 7,000 grains per pound, times the annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.

Emission Limitation:

There shall be no visible fugitive particulate emissions.

**Applicable Compliance Method:**

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

There shall be no visible particulate emissions from the baghouse stack.

**Applicable Compliance Method:**

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

There shall be no visible particulate emissions from building openings (roof vents, doors, etc.).

**Applicable Compliance Method:**

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**Applicable Compliance Method:**

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00425, issued on 3/21/02: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P012 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P012: #2 shotblaster controlled with the finishing melt dust collector (FMDC)	OAC rule 3745-31-05(A)(3) (PTI 07-00445)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the Finishing/Melt Dust Collector (FMDC).  There shall be no visible particulate fugitive emissions.  There shall be no visible particulate emissions from the baghouse stack.
	OAC rule 3745-35-07	There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.). Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.
	OAC rule 3745-17-07(A)	See section A.2.d below.
	OAC rule 3745-17-11	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below.
	OAC rule 3745-17-08(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e). The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Emissions units P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917 are vented to the FMDC. Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. If more emissions units are added to the FMDC, SSDC, EFDC or the WCC, each dust collector's allowable rate shall remain at 0.015 gr/dscf of exhaust gases.

4. The following emissions units shall not operate unless the associated control equipment is online:
  - a. Finishing/Melt Dust Collector - emissions units P005, P009, P012, P014, P906 (pouring), P913, F910 (pouring), P915, P916 and P917.
  - b. Sand System Dust Collector - emissions units P906 (cooling), P903, P918 and P910 (cooling).
  - c. East Foundry Dust Collector #1 - emissions units P906, P908 and P910.
  - d. Wheelabrator Cartridge Collector - emissions units P908, P913, P915, P916 and P917.
- C. **Monitoring and/or Record Keeping Requirements**
  1. The permittee shall properly install, 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 weekly basis.
  2. The permittee shall maintain monthly records of the following information:
    - a. the operating hours for each month; and
    - b. the rolling, 12-month summation of the operating hours.
  3. To ensure that Operational Restriction B.4 is met, emissions units P005, P009, P012, P014, P903, P906, P908, P910, P913, P915, P916, P917 and P918 shall have Programmable Logic Controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC#1 and the WCC in operation. If a control equipment malfunction occurs, emissions units P005, P009, P012, P014, P903, P906, P908, P910, P913, P915, P916, P917 and P918 shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify the personnel of the malfunction.
  4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. the total duration of any visible emission incident; and
    - c. any corrective actions taken to eliminate the visible emissions.
  5. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
    - a. the quantity of metal melted and poured, in tons;
    - b. the amount of isoset sand processed, in tons;
    - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.5.a and A.5.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
    - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
- D. **Reporting Requirements**
  1. The permittee shall submit quarterly 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 quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
  3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
  4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
  5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
- E. **Testing Requirements**
  1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2

Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic foot of exhaust gases, divided by 7,000 grains per pound, times the annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.

Emission Limitation:

There shall be no visible particulate fugitive emissions.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

There shall be no visible particulate emissions from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.).

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.5.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0773010180 Emissions Unit ID: P014 Issuance type: Final State Permit To Operate**

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P014: #3 shotblaster controlled with the finishing melt dust collector (FMDC)	OAC rule 3745-31-05(A)(3) (PTI 07-00453)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the Finishing/Melt Dust Collector (FMDC).  There shall be no visible particulate fugitive emissions.
	OAC rule 3745-35-07	There shall be no visible particulate emissions from the baghouse stack. Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.
	OAC rule 3745-17-07(A)	See section A.2.d below.
	OAC rule 3745-17-11	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below.
OAC rule 3745-17-08(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e). The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).	

2. **Additional Terms and Conditions**
  - (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Emissions units P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917 are vented to the FMDC. Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. If more emissions units are added to the FMDC, SDC, EFDC or the WCC, each dust collector's allowable rate shall remain at 0.015 gr/dscf of exhaust gases.
4. The following emissions units shall not operate unless the associated control equipment is online:
  - a. Finishing/Melt Dust Collector - emissions units P005, P009, P012, P014, P906 (pouring), P913, P910 (pouring), P915, P916 and P917.
  - b. Sand System Dust Collector - emissions units P906 (cooling), P903, P918 and P910 (cooling).
  - c. East Foundry Dust Collector #1 - emissions units P906, P908 and P910.
  - d. Wheelabrator Cartridge Collector - emissions units P908, P913, P915, P916 and P917.

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

1. The permittee shall properly install, 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 weekly basis.

2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. To ensure that Operational Restriction B.4 is met, emissions units P005, P009, P012, P014, P903, P906, P908, P910, P913, P915, P916, P917 and P918 shall have Programmable Logic Controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC#1 and the WCC in operation. If a control equipment malfunction occurs, emissions units P005, P009, P012, P014, P903, P906, P908, P910, P913, P915, P916, P917 and P918 shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify the personnel of the malfunction.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
5. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.5.a and A.5.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pt); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.

**D. Reporting Requirements**

1. The permittee shall submit quarterly 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 quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements specified in section E.2  
Emission Limitation:  
  
Particulate emissions shall not exceed 23.73 tons per rolling, 12-month period from the FMDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic foot of exhaust gases, divided by 7,000 grains per pound, times the annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.  
Emission Limitation:  
  
There shall be no visible particulate fugitive emissions.  
  
Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

There shall be no visible particulate emissions from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.5.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0773010180 Emissions Unit ID: P903 Issuance type: Final State Permit To Operate**

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P903: sand and bond unloading and storage system controlled with a three sided enclosure for sand unloading and pneumatic unloading of bond to storage hopper with storage hopper vented to the sand system dust collector (SSDC) baghouse	OAC rule 3745-31-05(A)(3) (PTI 07-00425)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.  Fugitive particulate emissions shall not exceed 0.375 pound per hour.  There shall be no visible particulate emissions from the baghouse stack.
	OAC rule 3745-35-07	There shall be no visible particulate emissions greater than 20% opacity as a 3-minute average from sand unloading. Particulate emissions shall not exceed 18.58 tons per rolling, 12-month period from the SSDC.
	OAC rule 3745-17-07(A)	Fugitive particulate emissions shall not exceed 1.12 tons per rolling, 12-month period.
	OAC rule 3745-17-11(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).
	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the SSDC baghouse, the dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the SSDC: P903, P906 (cooling), P910 (cooling) and P918.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions unit (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions shall not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

**B. Operational Restrictions**

- 1. The pressure drop across the SSDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
- 2. The maximum annual operating hours for bond unloading and the SSDC shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.

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

- 1. The permittee shall properly install, 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 weekly basis.
- 2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
- 3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and

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

4. 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 # 07-00425, issued on 3/21/02: C.1, C.2 and C.3. 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.

**D. 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 quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
5. 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 #07-00425, issued on 3/21/02: D.1, D.2, D.3 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Fugitive particulate emissions shall not exceed 0.375 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum sand unloading rate, in tons per hour, times the emission factor of 0.03 pound per ton, times 0.50 for the enclosure efficiency of 50%. The emission factor was obtained from RACM, Table 2.7-1, dated 1980.

Emission Limitation:

Fugitive particulate emissions shall not exceed 1.12 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum sand unloading rate, in tons per hour, times the emission factor of 0.03 pound per ton, times 0.50 for the enclosure efficiency of 50%, times 6,000 hours per year, and then dividing by 2,000 lbs/ton. The emission factor was obtained from RACM, Table 2.7-1, dated 1980.

Emission Limitation:

There shall be no visible particulate emissions from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

There shall be no visible particulate emissions greater than 20% opacity as a 3-minute average from sand unloading.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

Emission Limitation:

Particulate emissions shall not exceed 18.58 tons per rolling, 12-month period from the SSDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (48,181.82) times 60 minutes per hour, times 0.015 grain per dry standard cubic foot of exhaust gases, divided by 7,000 grains per pound, times the annual operating hours of 6,000 hours per year, and divided by

2,000 pounds per ton.

2. The permittee shall conduct, or have conducted, emission testing for the SSDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0773010180 Emissions Unit ID: P906 Issuance type: Final State Permit To Operate**

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P906: disamatic #1 mold making, pouring, cooling, and shakeout system	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.
pouring controlled with the finishing melt dust collector (FMDC)		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.
cooling controlled with the sand system dust collector (SSDC)		

shakeout controlled with the wheelabrator dust collector (WCC)

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the EFDC.

Fugitive particulate emissions shall not exceed 2.61 pounds per hour.

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

Volatile organic compounds emissions shall not exceed 3.0 pounds per hour from pouring.

Volatile organic compounds emissions shall not exceed 3.0 pounds per hour from cooling.

See section A.2.a below.

There shall be no visible particulate emissions from each of the the baghouse stacks.

There shall be no visible particulate emissions from the building openings (roof vents, doors, etc.).

OAC rule 3745-35-07

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Particulate emissions shall not exceed 18.58 tons per year from the SSDC.

Particulate emissions shall not exceed 18.25 tons per year from the EFDC.

Fugitive particulate emissions shall not exceed 13.04 tons per year for emissions units P906 and P910, combined.

Volatile organic compound emissions shall not exceed 18.0 tons per year for emissions units P906 and P910, combined.

Carbon monoxide emissions shall not exceed 96.80 tons per year for emissions units P906 and P910, combined.

See section A.2.d below.

OAC rule 3745-17-07(A)

See section A.2.b below.

OAC rule 3745-17-11(B)

See section A.2.b below.

OAC rule 3745-17-07(B)

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

OAC rule 3745-17-08(B)

The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

ORC 3704.03(T)(4)

See section A.2.e below.

**2. Additional Terms and Conditions**

- (a) The hourly VOC emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit. The VOC emission rates were submitted by OSCO Industries and were calculated using the results of U. S. EPA Method 25A tests performed on the FMDC and EFDC baghouses on October 7th and 8th, 1997. The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the FMDC, SSDC and/or EFDC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.

The following emissions units vent to the EFDC: P906 (shakeout), P908 and P910 (shakeout).

The following emissions units vent to the SSDC: P903, P906 (cooling), P910 (cooling) and P918.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions unit (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total

exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides and sulfur dioxide emissions from this air contaminant source since the uncontrolled potential to emit for each of these pollutants is less than ten tons per year.

**B. Operational Restrictions**

1. The pressure drop across the FMDC, EFDC and SSDC baghouses shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. Any sources venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the sources vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.
4. The maximum annual production rate from emissions units P906 and P910, combined, shall not exceed 80,000 tons of metal poured, based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall properly install, operate and maintain equipment to monitor the pressure drop across each 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 each baghouse on a weekly basis.
2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the total tons of molten iron produced, in tons;
  - b. the total hours of operation;
  - c. the total PE/PM10, in tons;
  - d. the total VOC emissions, in tons;
  - e. the total CO emissions, in tons;
  - f. the rolling, 12-month summation of the tons of molten iron produced, in tons;
  - g. the rolling, 12-month summation of the hours of operation;
  - h. the rolling, 12-month summation of the PE, in tons;
  - i. the rolling, 12-month summation of the VOC emissions, in tons; and
  - j. the rolling, 12-month summation of the CO emissions, in tons.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pt); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following for this emissions unit:

- a. all periods of time during which the recorded baghouse pressure drop was outside of the range specified above;
  - b. any exceedance of the rolling, 12-month hours of operation restriction specified above;
  - c. any exceedance of the rolling, 12-month restriction for the tons of molten iron processed specified above.
  - d. any exceedance of the rolling, 12-month emission limitation for PE/PM10 specified above;
  - e. any exceedance of the rolling, 12-month emission limitation for VOC specified above; and
  - f. any exceedance of the rolling, 12-month emission limitation for CO specified above.

The reports shall identify the cause(s) (if known) of each excursion, duration of the excursion, applicable operating rates during the excursion, and the corrective actions which were taken for each excursion. These reports shall be submitted to the Portsmouth Local Air Agency by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If an exceedance did not occur during the reporting period, then a report stating that fact is required.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from each stack serving this emissions unit or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
4. 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 #07-00487, issued on 7/13/00: D.1, D.2 and D.3. 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.

#### E. Testing Requirements

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust from the EFDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Fugitive particulate emissions shall not exceed 2.61 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:

i. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 0.04 pound per ton of iron (RACM, Table 2.7-1, dated 1980), times 1.0 (for 100% fugitive emissions);

ii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 4.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions); and

iii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 3.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions).

Emission Limitation:

Fugitive particulate emissions shall not exceed 13.04 tons per year for emissions units P906 and P910, combined.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:

- i. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 0.04 pound per ton of iron (RACM, Table 2.7-1, dated 1980), times 1.0 (for 100% fugitive emissions), times the annual hours of operation, divided by 2,000 pounds per ton;
- ii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 4.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions), times the annual hours of operation, divided by 2,000 pounds per ton; and
- iii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 3.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions), times the annual hours of operation, divided by 2,000 pounds per ton.
- Emission Limitation:
- Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.
- Applicable Compliance Method:
- If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.
- Emission Limitation:
- VOC emissions shall not exceed 3.0 pounds per hour from pouring.
- Applicable Compliance Method:
- If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 25A for the VOC emissions vented to the FMDC baghouse.
- Emission Limitation:
- VOC emissions shall not exceed 18.0 tons per year for emissions units P906 and P910, combined.
- Applicable Compliance Method:
- Compliance with the rolling, 12-month emission limitation shall be demonstrated through the records required in section A.III.2 above.
- Emission Limitation:
- VOC emissions shall not exceed 3.0 pounds per hour from cooling.
- Applicable Compliance Method:
- If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 25A for the VOC emissions vented to the SSDC baghouse.
- Emission Limitation:
- CO emissions shall not exceed 96.80 tons per year for emissions units P906 and P910, combined.
- Applicable Compliance Method:
- Compliance with the rolling, 12-month emission limitation shall be demonstrated through the records required in section A.III.2 above.
- Emission Limitation:
- There shall be no visible particulate emissions from the baghouse stacks.
- Applicable Compliance Method:
- If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.
- Emission Limitation:
- There shall be no visible emissions of particulate matter from the building openings (roof vents, doors, etc.).
- Applicable Compliance Method:
- Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.
- Emission Limitation:
- Particulate emissions shall not exceed 23.73 tons per year from the FMDC.
- Applicable Compliance Method:
- Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86), times 60 minutes per hour, times 0.015 grain per dry standard cubic foot, divide by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divide by 2,000 pounds per ton.
- Emission Limitation:
- Particulate emissions shall not exceed 18.58 tons per year from the SSDC.
- Applicable Compliance Method:
- Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (48,181.82), times 60 minutes per hour, times 0.015 grain per dry standard cubic foot, divide by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divide by 2,000 pounds per ton.

## Emission Limitation:

Particulate emissions shall not exceed 18.25 tons per year from the EFDC.

## Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (47,321.43), times 60 minutes per hour, times 0.015 grain per dry standard cubic foot, divide by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divide by 2,000 pounds per ton.

## Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

## Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC, EFDC and the SSDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.
- F. Miscellaneous Requirements**
1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0773010180 Emissions Unit ID: P908 Issuance type: Final State Permit To Operate**

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P908: south cooling drum controlled with the east foundry dust collector (EFDC) and the wheelabrator cartridge collector (WCC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the EFDC.
		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.
		Fugitive particulate emissions shall not exceed 0.65 pound per hour and 1.69 tons per year.
		There shall be no visible particulate emissions from the baghouse stacks.
		There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.).
	OAC rule 3745-35-07	Particulate emissions shall not exceed 18.25 tons per year from the EFDC.
		Particulate emissions shall not exceed 14.87 tons per year from the WCC.
		See section A.2.e below.
	OAC rule 3745-17-07(A)	See section A.2.a below.
	OAC rule 3745-17-11(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(1)(e).
	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the EFDC and/or WCC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the WCC: P908, P913, P915, P916 and P917.

The following emissions units vent to the EFDC: P906 (shakeout), P908 and P910 (shakeout).

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Any emissions units venting to the FMDC, SSSC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSSC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.

The south cooling drum collection hooding shall have a collection efficiency sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design.

Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the EFDC and WCC baghouses shall be maintained within the ranges of 2 to 9 inches

of water and 4 to 12 inches of water, respectively, while the emissions unit is in operation.

2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pt); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00461, issued on 3/19/02: C.1, C.2, C.3 and C.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.

**D. 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 deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
6. 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 #07-00461, issued on 3/19/02: D.1, D.2, D.3, D.4 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the EFDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emissions Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emission Limitation:

Fugitive particulate emissions shall not exceed 0.65 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum tons of sand handled per hour, times the emission factor of 0.65 pound per ton times 0.01 (1% fugitive emissions and 99% captured emissions).

The emission factor was obtained from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, EPA 450/4-90-003, dated March, 1990, for SCC 3-04-003-50.  
Emission Limitation:

Fugitive particulate emissions shall not exceed 1.69 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum tons of sand handled per hour, times the emission factor of 0.65 pound per ton times 0.01 (1% fugitive emissions and 99% captured emissions), times the maximum annual operating hours of 5,200 hours per year, and dividing by 2,000 pounds per ton.

The emission factor was obtained from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, EPA 450/4-90-003, dated March, 1990, for SCC 3-04-003-50.  
Emission Limitation:

There shall be no visible particulate emissions from the baghouse stacks.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.  
Emission Limitation:

There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.).

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.  
Emission Limitation:

Particulate emissions shall not exceed 18.25 tons per year from the EFDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (47,321.43) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, dividing by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and dividing by 2,000 pounds per ton.  
Emission Limitation:

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiply the maximum dry standard cubic feet of exhaust gases per minute (38,545.45) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, dividing by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and dividing by 2,000 pounds per ton.  
Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the EMDC and the WCC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.

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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00461, issued on 3/19/02: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P910 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P910: dismatic #2 mold making, pouring, cooling, and shakeout system	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.
pouring controlled with the finishing melt dust collector (FMDC)		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.
cooling controlled with the sand system dust collector (SSDC)		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the EFDC.
shakeout controlled with the wheelabrator dust collector (WCC)		Fugitive particulate emissions shall not exceed 2.61 pounds per hour.
		Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.
		Volatile organic compound (VOC) emissions shall not

exceed 3.0 pounds per hour.

VOC emissions shall not exceed 3.0 pounds per hour from cooling.

See section A.2.a below.

There shall be no visible particulate emissions from each of the baghouse stacks.

There shall be no visible particulate emissions from the building openings (roof vents, doors, etc.).

OAC rule 3745-35-07

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Particulate emissions shall not exceed 18.58 tons per year from the SSDC.

Particulate emissions shall not exceed 18.25 tons per year from the EFDC.

Fugitive particulate emissions shall not exceed 13.04 tons per year for emissions units P906 and P910, combined.

VOC emissions shall not exceed 18.0 tons per year for emission units P906 and P910, combined.

Carbon Monoxide (CO) emissions shall not exceed 96.80 tons per year from emissions units P906 and P910 combined.

See section A.2.d below.

OAC rule 3745-17-07(A)

See section A.2.b below.

OAC rule 3745-17-11(B)

See section A.2.b below.

OAC rule 3745-17-07(B)

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(1)(e).

OAC rule 3745-17-08(B)

The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

ORC 3704.03(T)(4)

See section A.2.e below.

**2. Additional Terms and Conditions**

- (a) The hourly VOC emissions limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit. The VOC emissions rates were submitted by OSCO Industries and were calculated using the results of U. S. EPA Method 25A tests performed on the FMDC and EFDC baghouses on October 7th and 8th, 1997.

The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

If any additional emissions units are vented to the FMDC, SSDC and/or EFDC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.

The following emissions units vent to the EFDC: P906 (shakeout), P908 and P910 (shakeout).

The following emissions units vent to the SSDC: P903, P906 (cooling), P910 (cooling) and P918.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides and sulfur dioxide emissions from this air contaminant source since the

uncontrolled potential to emit for each of these pollutants is less than ten tons per year.

**B. Operational Restrictions**

1. The pressure drop across the FMDC, EFDC and SSDC baghouses shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. Any emissions units venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.
4. The maximum annual production rate from emission units P906 and P910, combined, shall not exceed 80,000 tons of metal poured, based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the total tons of molten iron produced, in tons;
  - b. the total hours of operation;
  - c. the total PE/PM10, in tons;
  - d. the total VOC emissions, in tons;
  - e. the total CO emissions, in tons;
  - f. the rolling, 12-month summation of the tons of molten iron produced, in tons;
  - g. the rolling, 12-month summation of the hours of operation;
  - h. the rolling, 12-month summation of the PE, in tons;
  - i. the rolling, 12-month summation of the VOC emissions, in tons; and
  - j. the rolling, 12-month summation of the CO emissions, in tons.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following for this emissions unit:
  - a. all periods of time during which the recorded baghouse pressure drop was outside of the range specified above;
  - b. any exceedance of the rolling, 12-month hours of operation restriction specified above;
  - c. any exceedance of the rolling, 12-month restriction for the tons of molten iron processed specified above.
  - d. any exceedance of the rolling, 12-month emission limitation for PE/PM10 specified above;
  - e. any exceedance of the rolling, 12-month emission limitation for VOC specified above; and
  - f. any exceedance of the rolling, 12-month emission limitation for CO specified above.

The reports shall identify the cause(s) (if known) of each excursion, duration of the excursion, applicable operating rates during the excursion, and the corrective actions which were taken for each excursion. These reports shall be submitted to the Portsmouth Local Air Agency by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If an exceedance did not occur during the reporting period, then a report stating that fact is required.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
3. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
4. 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 #07-00487, issued on 7/13/00: D.1, D.2 and D.3. 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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust from the EFDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Fugitive particulate emissions shall not exceed 2.61 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:

i. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 0.04 pound per ton of iron (RACM, Table 2.7-1, dated 1980), times 1.0 (for 100% fugitive emissions);

ii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 4.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions); and

iii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 3.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions).

Emission Limitation:

Fugitive particulate emissions shall not exceed 13.04 tons per year for emissions units P906 and P910, combined.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:

i. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 0.04 pound per ton of iron (RACM, Table 2.7-1, dated 1980), times 1.0 (for 100% fugitive emissions), times the annual hours of operation, divided by 2,000 pounds per ton;

ii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 4.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions), times the annual hours of operation, divided by 2,000 pounds per ton; and

iii. multiply the maximum production rate, in tons of iron per hour, times the emission factor of 3.2 pounds per ton of iron (AP-42, Table 12.10-7, dated 1-95), times 0.01 (for 1% fugitive emissions and 99% captured emissions), times the annual hours of operation, divided by 2,000 pounds per ton.

Emission Limitation:

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.  
Emission Limitation:

VOC emissions shall not exceed 3.0 pounds per hour from pouring.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 25A for the VOC emissions vented to the FMDC baghouse.  
Emission Limitation:

VOC emissions shall not exceed 18.0 tons per year for emission units P906 and P910, combined.

Applicable Compliance Method:

Compliance with the rolling, 12-month emission limitation shall be demonstrated through the record keeping requirements specified in section A.III.2 above.  
Emission Limitation:

VOC emissions shall not exceed 3.0 pounds per hour from cooling.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 25A for the VOC emissions vented to the SSDC baghouse.  
Emission Limitation:

CO emissions shall not exceed 96.80 tons per year for emissions units P906 and P910, combined.

Applicable Compliance Method:

Compliance with the rolling, 12-month emission limitation shall be demonstrated through the record keeping requirements specified in section A.III.2 above.  
Emission Limitation:

There shall be no visible particulate emissions from the baghouse stacks.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.  
Emission Limitation:

There shall be no visible emissions of particulate matter from the building openings (roof vents, doors, etc.).

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.  
Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (61,517.86), times 60 minutes per hour, times 0.015 grain per dry standard cubic foot, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and dividing by 2,000 pounds per ton.  
Emission Limitation:

Particulate emissions shall not exceed 18.58 tons per year from the SSDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (48,181.82), times 60 minutes per hour, times 0.015 grains per dry standard cubic foot, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.  
Emission Limitation:

Particulate emissions shall not exceed 18.25 tons per year from the EFDC.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum dry standard cubic feet of exhaust gases per minute (47,321.43), times 60 minutes per hour, times 0.015 grain per dry standard cubic foot, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.  
Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total

combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC, EFDC, and the SSDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P913 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P913; electric induction holding furnace controlled with the finishing melt dust collector (FMDC) and the wheelabrator cartridge collector (WCC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.
	Fugitive particulate emissions shall not exceed 0.59 pound per hour.
	No visible particulate emissions from the baghouse stacks.
OAC rule 3745-35-07	No visible emissions of particulate matter from building openings (roof vents, doors, etc.). Particulate emissions shall not exceed 23.73 tons per year from the FMDC.
	Particulate emissions shall not exceed 14.87 tons per year from the WCC.
	Fugitive particulate emissions shall not exceed 1.9 tons per year.
OAC rule 3745-17-07(A)	See section A.2.a below.
OAC rule 3745-17-11(B)	See section A.2.a below.
OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).
OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
The particulate emissions from the roof vents shall not exceed 1.92 pounds/hour of PM/PM10 each. Emissions units P908, P913, P915, P916 and P917 are vented to the Wheelabrator Collection Cartridge (WCC).  
Emissions units P005, P009, P012, P906 (pouring), P014, P910 (pouring), P913, P915, P916 and P917 are vented to the Finishing/Melt Dust Collector (FMDC).  
The best available technology determination for this emissions unit includes hooding with an 80% collection efficiency vented to baghouse.

**B. Operational Restrictions**

- 1. The pressure drop across the FMDC and WCC baghouses shall be maintained within the ranges of 2 to 9 inches of water and 4 to 12 inches of water, respectively, while the emissions unit is in operation.
- 2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
- 3. If more emissions units are added to the FMDC, SSDC, EFDC or the WCC; each dust collector's allowable rate shall remain at 0.015 gr/dscf of exhaust gases.
- 4. The following emissions units shall not operate unless the associated control equipment is online:
  - a. Finishing/Melt Dust Collector; sources F001, F002, F005, F006 (pouring), F009, F010 (pouring), F012, F013 and F014.
  - b. Sand System Dust Collector; emissions units F006 (cooling), P901, P902 and F010 (cooling).
  - c. East Foundry Dust Collector #1; emissions units F007, F008 and F011.
  - d. Wheelabrator Cartridge Collector; emissions units F001, F002, F008 and F013.

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

- 1. The permittee shall properly install, 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 weekly basis.
- 2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this, the permittee shall record the cumulative operating hours for each calendar month.
- 3. To ensure that Operational Restriction B.4 is met, emissions units F001, F002, F005, F006, F007, F008, F009, F010, F011, F012, F013, F014, P901 and P902 shall have Programmable Logic Controllers (PLCs) which are

programmed to prevent the sources from operating without the FMDC, SSDC, EFDC and the WCC in operation. If a control equipment malfunction occurs, emissions units F001, F002, F005, F006, F007, F008, F009, F010, F011, F012, F013, F014, P901 and P902 shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify the personnel of the malfunction.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.

**D. 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 deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
5. 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 #07-00487, issued on 7/13/00: D.1, D.2, D.3 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the testing requirements specified in section E.2.  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the testing requirements specified in section E.2.  
Emission Limitation:  
  
Fugitive particulate emissions shall not exceed 0.59 pound per hour.  
  
Applicable Compliance Method:  
  
Multiply the emission factor of 0.09 lb/ton (AP-42; 12.10-3; 10% of electric induction furnace) by the maximum tons metal poured per hour (15) by the percentage of uncaptured fugitive emissions (0.20).  
Emission Limitation:  
  
Fugitive particulate emissions shall not exceed 1.9 tons per year.  
  
Applicable Compliance Method:  
  
Multiply the maximum production rate, in tons/hr, times the particulate emission factor of 0.09 pound/ton (AP-42; 12.10-3; 10% of electric induction furnace), times the percentage of uncaptured fugitive emissions (0.20), times the actual annual hours of operation, divided by 2000 pounds/ton.  
Emission Limitation:  
  
Particulate emissions shall not exceed 23.73 tons per year from the FMDC.  
  
Applicable Compliance Method:  
  
Multiply the dry standard cubic feet of exhaust gases per minute (61,517.86) by 60 min/hr, by 0.015 gr/dscf of

exhaust gases, divided by 7000 grains per pound, multiplied by the maximum annual operating hours of 6000 hours, based upon a rolling, 12-month summation, and divided by 2000 lbs/ton.

Emission Limitation:

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

Applicable Compliance Method:

Multiply the dry standard cubic feet of exhaust gases per minute (38,545.45) by 60 min/hr, by 0.015 gr/dscf of exhaust gases, divided by 7000 grains per pound, multiplied by the maximum annual operating hours of 6000 hours, based upon a rolling, 12-month summation, and divided by 2000 lbs/ton.

Emission Limitation:

The particulate emissions from the roof vents shall not exceed 1.92 pounds/hour of PM/PM10 each.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.

Emission Limitation:

No visible particulate emissions from the baghouse stacks.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

No visible emissions of particulate matter from building openings (roof vents, doors, etc.)

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC and the WCC in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months following permit issuance.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P915 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P915: electric induction furnace C controlled with the finishing melt dust collector (FMDC) and the wheelabrator cartridge collector (WCC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.
		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.
		Fugitive particulate emissions shall not exceed 0.50 pounds per hour.
		There shall be no visible particulate emissions from the baghouse stacks.
		There shall be no visible fugitive particulate emissions from building openings (roof vents, doors, etc.).
		Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.
	OAC rule 3745-35-07	Particulate emissions shall not exceed 23.73 tons per year from the FMDC.
		Particulate emissions shall not exceed 14.87 tons per year from the WCC.
		Fugitive particulate emissions shall not exceed 1.6 tons per year.
		See section A.2.d below.
OAC rule 3745-17-07(A)	See section A.2.a below.	
OAC rule 3745-17-11(B)	See section A.2.a below.	
OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).	
OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).	

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the FMDC and/or WCC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.
 

The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.

The following emissions units vent to the WCC: P908, P913, P915, P916 and P917.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Electric induction furnaces A, B and C have a combined melt rate of 33 tons per hour.

Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC and WCC baghouses shall be maintained within the ranges of 2 to 9 inches of water and 4 to 12 inches of water, respectively, while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. Any emissions units venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.
4. The maximum annual production rate from emissions units P915, P916 and P917, combined, shall not exceed 80,000 tons of metal melted and poured, based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
  - a. the quantity of metal melted and poured, in tons;
  - b. the amount of isoset sand processed, in tons;
  - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
  - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.

**D. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable ranges specified above.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.

6. 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 #07-00487, issued on 7/13/00: D.1, D.2, D.3, D.4 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

Emission Limitation:

Fugitive particulate emissions shall not exceed 0.50 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions). The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

Emission Limitation:

Fugitive particulate emissions shall not exceed 1.6 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions), times 6,000 hours per year, and divided by 2,000 pounds per ton. The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

Emission Limitation:

No visible particulate emissions from the baghouse stacks.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

No visible emissions of particulate matter from building openings (roof vents, doors, etc.)

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.

Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

Emission Limitation:

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

## Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (38,545.45) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

## Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

## Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC and the WCC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

F. **Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0773010180 Emissions Unit ID: P916 Issuance type: Final State Permit To Operate**

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

A. **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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P916: electric induction furnace A controlled with the finishing melt dust collector (FMDC) and the wheelabrator cartridge collector (WCC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.
		Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.
		Fugitive particulate emissions shall not exceed 0.50 pounds per hour.
		There shall be no visible particulate emissions from the baghouse stacks.
		There shall be no visible fugitive particulate emissions from building openings (roof vents, doors, etc.).
OAC rule 3745-35-07	OAC rule 3745-35-07	Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.
		Particulate emissions shall not exceed 23.73 tons per year from the FMDC.
		Particulate emissions shall not exceed 14.87 tons per year from the WCC.
OAC rule 3745-17-07(A) OAC rule 3745-17-11(B) OAC rule 3745-17-07(B)	OAC rule 3745-17-08(B)	Fugitive particulate emissions shall not exceed 1.6 tons per year.
		See section A.2.d below.
		See section A.2.a below.
OAC rule 3745-17-08(B)	OAC rule 3745-17-08(B)	See section A.2.a below.
		This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).
		The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

(a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the FMDC and/or WCC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.

The following emissions units vent to the WCC: P908, P913, P915, P916 and P917.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Electric induction furnaces A, B and C have a combined melt rate of 33 tons per hour. Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC and WCC baghouses shall be maintained within the ranges of 2 to 9 inches of water and 4 to 12 inches of water, respectively, while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.

3. Any emissions units venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.
  4. The maximum annual production rate from emissions units P915, P916 and P917, combined, shall not exceed 80,000 tons of metal melted and poured, based upon a rolling, 12-month summation of the production rates.
- C. Monitoring and/or Record Keeping Requirements**
1. The permittee shall properly install, 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 weekly basis.
  2. The permittee shall maintain monthly records of the following information:
    - a. the operating hours for each month; and
    - b. the rolling, 12-month summation of the operating hours.
  3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. the total duration of any visible emission incident; and
    - c. any corrective actions taken to eliminate the visible emissions.
  4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
    - a. the quantity of metal melted and poured, in tons;
    - b. the amount of isoset sand processed, in tons;
    - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
    - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
  5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.
- D. Reporting Requirements**
1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable ranges specified above.
  2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
  3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
  4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
  5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
  6. 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 #07-00487, issued on 7/13/00: D.1, D.2, D.3, D.4 and D.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.
- E. Testing Requirements**
1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.

## Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

## Emission Limitation:

Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.

## Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in section E.2.

## Emission Limitation:

Fugitive particulate emissions shall not exceed 0.50 pound per hour.

## Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions). The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

## Emission Limitation:

Fugitive particulate emissions shall not exceed 1.6 tons per year.

## Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions), times 6,000 hours per year, and divided by 2,000 pounds per ton. The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

## Emission Limitation:

No visible particulate emissions from the baghouse stacks.

## Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

## Emission Limitation:

No visible emissions of particulate matter from building openings (roof vents, doors, etc.)

## Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Appendix A, Method 22.

## Emission Limitation:

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

## Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.

## Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

## Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

## Emission Limitation:

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

## Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (38,545.45) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

## Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

## Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC and the WCC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months following permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P917 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P917: electric induction furnace B controlled with the finishing melt dust collector (FMDC) and the wheelabrator cartridge collector (WCC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.  Fugitive particulate emissions shall not exceed 0.50 pounds per hour.

There shall be no visible particulate emissions from the baghouse stacks.

There shall be no visible fugitive particulate emissions from building openings (roof vents, doors, etc.).

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

OAC rule 3745-35-07

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

Fugitive particulate emissions shall not exceed 1.6 tons per year.

See section A.2.d below.

OAC rule 3745-17-07(A)

See section A.2.a below.

OAC rule 3745-17-11(B)

See section A.2.a below.

OAC rule 3745-17-07(B)

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B) (11)(e).

OAC rule 3745-17-08(B)

The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the FMDC and/or WCC baghouses, each dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the FMDC: P005, P906 (pouring), P009, P910 (pouring), P012, P913, P014, P915, P916 and P917.

The following emissions units vent to the WCC: P908, P913, P915, P916 and P917.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Electric induction furnaces A, B and C have a combined melt rate of 33 tons per hour.

Hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

**B. Operational Restrictions**

1. The pressure drop across the FMDC and WCC baghouses shall be maintained within the ranges of 2 to 9 inches of water and 4 to 12 inches of water, respectively, while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.
3. Any emissions units venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.
4. The maximum annual production rate from emissions units P915, P916 and P917, combined, shall not exceed 80,000 tons of metal melted and poured, based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall properly install, 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 weekly basis.

2. The permittee shall maintain monthly records of the following information:
    - a. the operating hours for each month; and
    - b. the rolling, 12-month summation of the operating hours.
  3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. the total duration of any visible emission incident; and
    - c. any corrective actions taken to eliminate the visible emissions.
  4. The permittee shall collect and record the following information each month for emissions units P905, P009, P012, P014, P906, P908, P910, P915, P916 and P917:
    - a. the quantity of metal melted and poured, in tons;
    - b. the amount of isoset sand processed, in tons;
    - c. the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons (i.e., the values from A.4.a and A.4.b above multiplied by the appropriate HAP emission factors specified in the HAP potential to emit spreadsheet submitted in association with the permit application for this pti); and
    - d. the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
  5. 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 # 07-00487, issued on 7/13/00: C.1, C.2, C.3 and C.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.
- D. Reporting Requirements**
1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable ranges specified above.
  2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
  3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emission limitations.
  4. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.
  5. 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
  6. 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 #07-00487, issued on 7/13/00: D.1, D.2, D.3, D.4 and D.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.
- E. Testing Requirements**
1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the FMDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emission Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the WCC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emission Limitation:  
  
Fugitive particulate emissions shall not exceed 0.50 pound per hour.  
  
Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions). The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

Emission Limitation:

Fugitive particulate emissions shall not exceed 1.6 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum production rate, in tons per hour, times the particulate emission factor of 1.0 pound per ton, times 0.05 (based on 5% fugitive emissions and 95% captured emissions), times 6,000 hours per year, and divided by 2,000 pounds per ton. The particulate emission factor was obtained from Summary of Factors Affecting Compliance by Ferrous Foundries, EPA-340/1-80-020, dated January 1981.

Emission Limitation:

No visible particulate emissions from the baghouse stacks.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.

Emission Limitation:

No visible emissions of particulate matter from building openings (roof vents, doors, etc.)

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Appendix A, Method 22.

Emission Limitation:

Particulate emissions from the two roof vents shall not exceed 1.92 pounds per hour each.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the procedures in 40 CFR Part 60, Method 5.

Emission Limitation:

Particulate emissions shall not exceed 23.73 tons per year from the FMDC.

Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (61,517.86) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

Emission Limitation:

Particulate emissions shall not exceed 14.87 tons per year from the WCC.

Applicable Compliance Method:

Multiply the maximum dry standard cubic feet of exhaust gases per minute (38,545.45) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year (based on a rolling, 12-month summation), and divided by 2,000 pounds per ton.

Emission Limitations:

HAP emissions shall not exceed 9.9 tons per year for any individual HAP and/or 24.9 tons per year for total combined HAPs for emissions units P005, P009, P012, P014, P906, P908, P910, P915, P916 and P917, combined.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emission limitations shall be based upon the record keeping requirements specified in section C.4.

2. The permittee shall conduct, or have conducted, emission testing for the FMDC and the WCC in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months following permit issuance.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
- 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.
- 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the

test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

**F. Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0773010180 Emissions Unit ID: P918 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P918: sand muller system controlled with the sand system dust collector (SSDC)	OAC rule 3745-31-05(A)(3) (PTI 07-00487)	Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.  Fugitive particulate emissions shall not exceed 1.17 pounds per hour.  There shall be no visible particulate emissions from the baghouse stacks.
	OAC rule 3745-35-07	There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.). Particulate emissions shall not exceed 18.58 tons per year from the SSDC.
	OAC rule 3745-17-07(A)	Fugitive particulate emissions shall not exceed 3.28 tons per year.
	OAC rule 3745-17-11(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	See section A.2.a below.
	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore,

pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). If any additional emissions units are vented to the SSDC baghouse, the dust collector's allowable rate shall remain 0.015 grain per dry standard cubic foot of exhaust gases.

The following emissions units vent to the SSDC: P903, P906, P910 and P918.

The permittee reserves the right to direct the particulate emissions from any other existing or new emissions units (once permitted and thereby considered existing) to these fabric filters with the understanding that emissions will not exceed 0.015 grain per dry standard cubic foot of the total exhaust gases and/or individual emissions unit's permitted allowable emission limitation.

This right is allowed as long as the permittee does not trigger the modification definition pursuant to OAC rule 3745-31-01 and submits information to the Ohio EPA within 30 days after the change(s) documenting the change(s). This information would include, but not limited to, the following: a description of which emissions units were redirected to which baghouse, and calculations supporting the permittee's contention that the redirection of existing emissions units would not trigger the modification definition pursuant to OAC rule 3745-31-01.

Any emissions units venting to the FMDC, SSDC, WCC and EFDC baghouses shall not operate unless the respective baghouse is in operation. To ensure that this condition is met, emissions units P005, P906, P908, P009, P910, P012, P913, P014, P915, P916, P917 and P918 shall have programmable logic controllers (PLCs) which are programmed to prevent the emissions units from operating without the FMDC, SSDC, EFDC and WCC in operation. If a control equipment malfunction occurs, the emissions units vented to the respective baghouse, shall be shut down after the cycles are completed. An audible alarm shall be sounded to notify personnel of the malfunction.

**B. Operational Restrictions**

1. The pressure drop across the SSDC baghouse shall be maintained within the range of 2 to 9 inches of water while the emissions unit is in operation.
2. The maximum annual operating hours for this emissions unit shall not exceed 6,000 hours, based upon a rolling, 12-month summation of the operating hours.

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

1. The permittee shall properly install, 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 weekly basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate fugitive emissions and for any visible particulate emissions from each stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
4. 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 # 07-00487, issued on 7/13/00: C.1, C.2 and C.3. 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.

**D. 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 deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. These deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 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 or any visible particulate fugitive emissions were observed and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month periods.
5. 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 #07-00487, issued on 7/13/00: D.1, D.2,

D.3 and D.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.

**E. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:  
Emissions Limitation:  
  
Particulate emissions shall not exceed 0.015 grain per dry standard cubic foot of exhaust gases from the SSDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements specified in section E.2.  
Emission Limitation:  
  
Fugitive particulate emissions shall not exceed 1.17 pounds per hour.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated by multiplying the maximum tons of sand handled per hour, times the particulate emission factor of 1.17 pounds per ton times 0.01 (1% fugitive emissions and 99% captured emissions).  
  
The emission factor was obtained from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, EPA 450/4-90-003, dated March 1990, for SCC 3-04-003-50.  
Emission Limitation:  
  
Fugitive particulate emissions shall not exceed 3.28 tons per year.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated by multiplying the maximum tons of sand handled per hour, times the particulate emission factor of 1.3 pounds per ton times 0.01 (1% fugitive emissions and 99% captured emissions), times the maximum annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.  
  
The emission factor was obtained from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, EPA 450/4-90-003, dated March 1990, for SCC 3-04-003-50.  
Emission Limitation:  
  
There shall be no visible particulate emissions from the baghouse stacks.  
  
Applicable Compliance Method:  
  
If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 adapted for use at the stack exit.  
Emission Limitation:  
  
There shall be no visible emissions of particulate matter from building openings (roof vents, doors, etc.).  
  
Applicable Compliance Method:  
  
If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.  
Emission Limitation:  
  
Particulate emissions shall not exceed 18.58 tons per year from the SSDC.  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated by multiply the maximum dry standard cubic feet of exhaust gases per minute (48,181.82) times 60 minutes per hour, times 0.015 grain per dry standard cubic feet of exhaust gases, divided by 7,000 grains per pound, times the maximum annual operating hours of 6,000 hours per year, and divided by 2,000 pounds per ton.
2. The permittee shall conduct, or have conducted, emission testing for the SSDC in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
  - 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.
  - 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 Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

3. 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 #07-00487, issued on 7/13/00: E.1 and E.2. 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.

F. **Miscellaneous Requirements**

1. In accordance with the provisions of OAC rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A, B, C, D and E.