

Facility ID: 1677010014 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.

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[Go to Part II for Emissions Unit F004](#)

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Facility ID: 1677010014 Emissions Unit ID: F003 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>
casting shakeout table with hood and baghouse control system	OAC rule 3745-17-07(B)	Visible particulate emissions (PE) from any fugitive dust source shall not exceed twenty percent opacity, as a three-minute average. See A.2.a below. 2.843 pounds of PE per ton of gray iron produced  13.18 tons/yr of PE as a rolling, 12-month period
	OAC rule 3745-17-08	
	OAC rule 3745-35-07	

**2. Additional Terms and Conditions**

- (a) The permittee shall use hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency for such equipment shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

**B. Operational Restrictions**

1. The maximum annual production rate for this facility shall not exceed 9274 tons per year of gray iron, based on a rolling, 12-month summation of the production rates.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Production
1	773 tons
1-2	1546 tons
1-3	2319 tons
1-4	3091 tons
1-5	3864 tons
1-6	4637 tons
1-7	5410 tons
1-8	6183 tons
1-9	6956 tons
1-10	7728 tons
1-11	8501 tons
1-12	9274 tons

After the first 12 calendar months of operation following the issuance of the permit to operate, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the production rate for each month; and
  - b. beginning after the first 12 calendar months of operation following the issuance of the permit to operate, the rolling, 12-month production rates.

Also, during the first 12 calendar months of operation following the issuance of the permit to operate, the permittee shall record the cumulative monthly production rate.

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

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

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

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of the permit to operate, all exceedances of the maximum allowable monthly cumulative production levels.
2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the roof monitors, windows, and/or doors serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The quarterly deviation (excursion) reports shall be submitted in accordance with the requirements of General

Term and Condition #3.

**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:

2.843 pounds of PE per ton of gray iron produced

Applicable Compliance Method:

Compliance with the emission limitation shall be demonstrated as follows:

i. multiply the AP-42 particulate emission factor of 3.2 pounds of PE per ton of gray iron produced (Table 12.10-7 dated 1/95) by (1 - 0.60);

ii. multiply the allowable 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases (OAC rule 3745-17-08 allowable) by the maximum dry standard cubic foot of exhaust gases times 60 minutes/hour divided by 7000 grains per lb, then divided by 2.3 tons of gray iron produced per hour; and

iii. sum i + ii.

Emission Limitation:

13.18 TPY of PE as a rolling, 12-month summation

Applicable Compliance Method:

Compliance with the allowable annual PE emission limitation above shall be determined by multiplying the allowable particulate emission limitation of 2.843 pounds of PE per ton of gray iron produced by the maximum allowable annual production rate (9274 tons per year, as a rolling, 12-month summation), then divided by 2000.

Emission Limitation:

no visible particulate emissions

Applicable Compliance Method:

Compliance with the requirement for no visible particulate emissions shall be determined in accordance with the test method and procedures specified in OAC rule 3745-17-03(B)(4).

Emission Limitation

0.030 grain of PE per dry standard cubic foot of exhaust gases

Applicable Compliance Method

If required, compliance with the allowable emission limitation above shall be determined by using the test method(s) and procedures specified in OAC rule 3745-17-03(B)(10).

Emission Limitation

Visible PE from any fugitive dust source shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method

Compliance with the visible PE limitation for fugitive dust from the emissions unit shall be determined in accordance with the test method and procedures specified in OAC rule 3745-17-07(B)(3).

**F. Miscellaneous Requirements**

1. In accordance with OAC rule 3745-35-07, sections A, B, C, D, E, and F of these terms and conditions constitute the federally enforceable portions of this permit.

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**Facility ID: 1677010014 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>
magnetic separator and screening unit in series with a baghouse as control	OAC rule 3745-17-07(B)	Visible particulate emissions (PE) from any fugitive dust source shall not exceed twenty percent opacity, as a three-minute average.
	OAC rule 3745-17-08	See A.2.a below.
	OAC rule 3745-35-07	1.66 pounds of PE per ton of gray iron produced
		7.70 tons/yr of PE as a rolling, 12-month period

**2. Additional Terms and Conditions**

- (a) The permittee shall use hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency for such equipment shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

**B. Operational Restrictions**

1. The maximum annual production rate for this facility shall not exceed 9274 tons per year of gray iron, based on a rolling, 12-month summation of the production rates.  
 To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Production
1	773 tons
1-2	1546 tons
1-3	2319 tons
1-4	3091 tons
1-5	3864 tons
1-6	4637 tons
1-7	5410 tons
1-8	6183 tons
1-9	6956 tons
1-10	7728 tons
1-11	8501 tons
1-12	9274 tons

After the first 12 calendar months of operation following the issuance of the permit to operate, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

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

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the production rate for each month; and
  - b. beginning after the first 12 calendar months of operation following the issuance of the permit to operate, the rolling, 12-month production rates.

Also, during the first 12 calendar months of operation following the issuance of the permit to operate, the permittee shall record the cumulative monthly production rate.

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred. The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's

specifications until such time as any required emission testing is conducted.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a administrative modification.

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

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of the permit to operate, all exceedances of the maximum allowable monthly cumulative production levels.
2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the roof monitors, windows, and/or doors serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The quarterly deviation (excursion) reports shall be submitted in accordance with the requirements of General Term and Condition #3.

**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:  
1.66 pounds of PE per ton of gray iron produced  
Applicable Compliance Method:  
Compliance with the emission limitation shall be demonstrated as follows:
  - i. multiply the US EPA Fire 6.22 particulate emissions factor of 6.0 pounds of PE per ton of gray iron produced (SCC 30400352) by (1 - 0.80);
  - ii. multiply the allowable 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases (OAC rule 3745-17-08 allowable) by the maximum dry standard cubic foot of exhaust gases times 60 minutes/hour divided by 7000 grains per lb, then divided by 2.3 tons of gray iron produced per hour; and
  - iii. sum i + ii.

Emission Limitation:  
7.7 TPY of PE as a rolling, 12-month summation  
Applicable Compliance Method:  
Compliance with the allowable annual PE emission limitation above shall be determined by multiplying the allowable particulate emission limitation of 1.66 pounds of PE per ton of gray iron produced by the maximum allowable annual production rate (9274 tons per year, as a rolling, 12-month summation), then divided by 2000.  
Emission Limitation:

no visible particulate emissions

Applicable Compliance Method:

Compliance with the requirement for no visible particulate emissions shall be determined in accordance with the test method and procedures specified in OAC rule 3745-17-03(B)(4).  
Emission Limitation

0.030 grain of PE per dry standard cubic foot of exhaust gases

Applicable Compliance Method

If required, compliance with the allowable emission limitation above shall be determined by using the test method(s) and procedures specified in OAC rule 3745-17-03(B)(10).  
Emission Limitation

Visible PE from any fugitive dust source shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method

Compliance with the visible PE limitation for fugitive dust from the emissions unit shall be determined in accordance with the test method and procedures specified in OAC rule 3745-17-07(B)(3).

**F. Miscellaneous Requirements**

1. In accordance with OAC rule 3745-35-07, sections A, B, C, D, E, and F of these terms and conditions constitute the federally enforceable portions of this permit.