

Facility ID: 1409010908 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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Facility ID: 1409010908 Emissions Unit ID: F001 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>
BOF slag processing plant, including crusher, conveyors, transfer points and screens.	OAC rule 3745-31-05 (A) and (D) (PTI 14-05296) Synthetic Minor to avoid NSR Offset Policy and Title V	1.9 lbs PM-10/hr, 1.74 TPY PM-10* 4.0 lbs PM/hr, 3.68 TPY PM* See terms A.2.a thru A.2.c and B.1.  * Based upon a rolling 12-month summation  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B). The visible emission limitation specified in this rule is less stringent than the visible emission limitation established pursuant OAC rule 3745-31-05 (A) (3). See term A.2.c
	OAC rule 3745-17-07 (B)	
	OAC rule 3745-17-08(B)	

**2. Additional Terms and Conditions**

- (a) Visible particulate emissions from any crusher, screen, conveyor or transfer point, including the grizzly feeder, shall not exceed 10 percent opacity, as a six-minute average. The permittee shall employ control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to implement the following control measures to ensure compliance:
  - i. SECO 48" x 24" vibrating grizzly feeder:
 

Water sprays shall be used at the grizzly feeder to continuously wet the slag feed material to the extent necessary to meet the visible emissions limitation. Also, the front end loader bucket-to-feeder drop height shall be minimized at all times.
  - ii. all screens:
 

Water sprays at each screen shall be used to continuously wet the slag material to the extent necessary to meet the visible emissions limitation.

Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

The equipment that are covered by this permit and subject to the above referenced requirements are listed below:

- i. All conveyors (14) in the BOF slag processing plant and associated transfer points.
- ii. Cone crusher.
- iii. SECO 48" x 24" vibrating grizzly feeder.
- iv. SECO 5' x 12' double deck screen.
- v. SECO 6' x 16' triple deck screen.

**B. Operational Restrictions**

1. The annual throughput of slag material shall not exceed 1,095,000 tons per year.

Compliance with the annual slag material usage limitation shall be based upon a rolling 12-month summation of the slag material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of slag material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.3). This shall include the information for the current month and the preceding eleven months.
2. The permittee shall perform daily inspections of the water sprays at the crusher and the screens to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
3. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:
  - a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and/or
  - c. increase water flow to "upstream" conveyors to ensure that slag maintains sufficient moisture to prevent visible emissions violations at the affected locations.
4. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for all the crushers, screens, conveyors, and transfer points associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total slag processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the rolling 12-month rolling slag material usage limitation shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the hourly and annual particulate emissions limitations shall be determined using the following equations and emissions factors:

Conveyor transfer points:  
.000048 lb PM-10/ton material processed, 0.000101 lb PM/ton material processed (based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

## Feeder loading:

0.000531 lb PM-10/ton material processed, 0.001122 lb PM/ton material processed (based on AP-42, Section 13.2.4.3, 1/95, U=7.17 mph, M = 0.92%, 90% control for watering)

## Screening:

0.00084 lb PM-10/ton material processed, 0.001764 lb PM/ton material processed (based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

## Crushing:

0.00059 lb PM-10/ton material processed, 0.001239 lb PM/ton material processed (Based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

## Cone Crusher:

0.0024 lb PM-10/ton material processed, 0.00504 lb PM/ton material processed (Based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

$$H_{total} = H_t + H_f + H_s + H_c + H_{cc}$$

where:

$H_{total}$  = total hourly emissions for all transfer points, feeder, screens and crushers

$H_t$ ,  $H_f$ ,  $H_s$ ,  $H_c$  and  $H_{cc}$  shall be found individually through the following equations.

Transfer points:

$H_t$  (PM-10) = (0.000048 lb PM-10/ton) x (summation of the maximum hourly tons of slag material processed at all the transfer points)

$H_t$  (PM) = ( 0.000101 lb PM/ton) x (summation of the maximum hourly tons of slag material processed at all the transfer points)

where:

$H_t$  = hourly PM / PM-10 emissions from all the transfer points (lbs/hr)

Feeder loading:

$H_f$  (PM-10) = 0.000531(lb PM-10/ton of material) x  $T_f$

$H_f$  (PM) = 0.001122(lb PM-10/ton of material) x  $T_f$

where:

$H_f$  = hourly PM / PM-10 emissions for feeder loading (lbs/hr)

$T_f$  = maximum hourly throughput for feeder loading, tons/hr

Screens:

$H_s$  (PM-10) = (0.00084 lb PM-10/ton) x (summation of the maximum hourly tons of slag material processed thru all the screens)

$H_s$  (PM) = (0.001764 lb PM/ton) x (summation of the maximum hourly tons of slag material processed thru all the screens)

where:

$H_s$  = hourly PM / PM-10 emissions for screens (lbs/hr)

Crushers (excluding cone crusher):

$H_c$  (PM-10) = (0.00059 lb PM-10/ton) x (summation of the maximum hourly tons of slag material processed thru all the crushers)

$H_c$  (PM) = (0.001239 lb PM/ton) x (summation of the maximum hourly tons of slag material processed thru all the crushers)

where:

$H_c$  = hourly PM / PM-10 emissions for crushers (lbs/hr)

Cone Crusher:

$H_{cc}$  (PM-10) = (0.0024 lb PM-10/ton) x (summation of the maximum hourly tons of slag material processed thru cone crusher)

$H_{cc}$  (PM) = (0.00504 lb PM/ton) x (summation of the maximum hourly tons of slag material processed thru cone crusher)

where:

$H_{cc}$  = hourly PM / PM-10 emissions for cone crusher (lbs/hr)

$$A_{total} = A_t + A_f + A_s + A_c + A_{cc}$$

where:

$A_{total}$  = total annual emissions for all transfer points, feeder, screens, crushers and cone crusher

$A_t$ ,  $A_f$ ,  $A_s$ ,  $A_c$  and  $A_{cc}$  shall be found individually through the equations for  $H_t$ ,  $H_f$ ,  $H_s$ ,  $H_c$  and  $H_{cc}$  and replacing the hourly production rates by annual production rates.

**F. Miscellaneous Requirements**

1. By request of the applicant and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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Facility ID: 1409010908 Emissions Unit ID: F002 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>
BF slag processing plant, including crushers, conveyors, conveyor transfer points, and screens	OAC rule 3745-31-05(A) and (D) (PTI 14-04853) Synthetic Minor to avoid NSR Offset Policy and Title V	1.6 lbs PM-10/hr, 1.4 TPY PM-10* 3.3 lbs PM/hr, 3 TPY PM* See terms A.2.a thru A.2.c and B.1.  * Based upon a rolling 12-month summation  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 (B). The visible emission limitation established by this rule is less stringent than visible emission limitation established by OAC rule 3745-31-05 (A) (3). See term A.2.c.
	OAC rule 3745-17-07(B)	
	OAC rule 3745-17-08 (B)	

**2. Additional Terms and Conditions**

- (a) The equipment that are covered by this permit and subject to the above-mentioned requirements are listed below:
  - i. All conveyors (12) in the BF slag processing plant and associated transfer points.
  - ii. Cone crusher and jaw crusher.
  - iii. SECO 48" x 20" vibrating grizzly feeder.
  - iv. SECO 6' x 16' triple deck screens (2).  
Visible particulate emissions from any crusher, screen, conveyor or transfer point shall not exceed 10 percent opacity, as a six-minute average.  
The permittee shall employ control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to implement the following control measures to ensure compliance:
    - i. SECO 48" x 20" vibrating grizzly feeder:  
  
Water sprays shall be used at the grizzly feeder to continuously wet the slag feed material to the extent necessary to meet the visible emissions limitation. Also, the front end loader bucket-to-feeder drop height shall be minimized at all times.
    - ii. all screens:  
  
Water sprays at each screen shall be used to continuously wet the slag material to the extent necessary to meet the visible emissions limitation.  
  
Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

**B. Operational Restrictions**

1. The annual throughput of slag material for the SECO 48" X 20" vibrating grizzly feeder and the 48" X 40 ft. long conveyor with magntic head pulley shall not exceed 730,000 tons per year.  
  
The annual throughput of slag material from the 42" X 140 ft. long conveyor (identified as # 9 on the flow

diagram submitted with the application on 11/16/00) shall not exceed 904,525 tons per year.

Compliance with the annual slag material usage limitations shall be based upon rolling 12-month summations of the slag material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summations of the slag material throughputs for the vibrating grizzly feeder and the 48" x 40 ft. and 42" x 140 ft. conveyors, and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in Term E.3). This shall include the information for the current month and the preceding eleven months.
2. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:
  - a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and
  - c. increase water flow to "upstream" conveyors to ensure that slag maintains sufficient moisture to prevent visible emissions violations at the affected locations.
3. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for all the loading operations, crushers, screens, conveyors, and transfer points associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.
4. The permittee shall perform daily inspections of the water sprays at the crushers and the screens to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a. above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total slag material throughputs for the grizzly feeder and the conveyors identified in B.1; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the rolling 12-month slag material usage limitation shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined by using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the hourly and annual particulate emissions shall be demonstrated by the record keeping requirements in term C.1.

Conveyor transfer points:  
 0.000048 lb PM-10/ton material processed,  
 0.000101 lb/ton material processed. (Based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

Feeder loading:  
 0.000531 lb PM-10/ton material processed, 0.001122 lb PM/ton material processed (based on AP-42, Section 13.2.4.3, 1/95, U=7.17 mph, M = 0.92%, 90% control for watering)

Screening:  
 0.00084 lb PM-10/ton material processed, 0.001764 lb PM/ton material processed (based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

Crushing:  
 0.00059 lb PM-10/ton material processed, 0.001239 lb PM/ton material processed (Based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

$H_{total} = H_t + H_f + H_s + H_c$   
 where:

Htotal = total hourly emissions for all transfer points, feeder, screens and crushers  
 Ht, Hf, Hs, and Hc shall be found individually through the following equations.  
 Transfer points:

$H_t \text{ (PM-10)} = (0.000048 \text{ lb PM-10/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the transfer points})$

$H_t \text{ (PM)} = (0.000101 \text{ lb PM/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the transfer points})$

where:

Ht = hourly PM / PM-10 emissions from all the transfer points (lbs/hr)

Feeder loading:

$H_f \text{ (PM-10)} = (0.000531 \text{ lb PM-10/ton material processed}) \times T_f$

$H_f \text{ (PM)} = (0.001122 \text{ lb PM-10/ton material processed}) \times T_f$

where:

Hf = hourly PM / PM-10 emissions for feeder loading (lbs/hr)

Tf = maximum hourly throughput for feeder loading, tons/hr

Screens:

$H_s \text{ (PM-10)} = (0.00084 \text{ lb PM-10/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the screens})$

$H_s \text{ (PM)} = (0.001764 \text{ lb PM/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the screens})$

where:

Hs = hourly PM / PM-10 emissions for screens (lbs/hr)

Crushers:

$H_c \text{ (PM-10)} = (0.00059 \text{ lb PM-10/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the crushers})$

$H_c \text{ (PM)} = (0.001239 \text{ lb PM/ton}) \times (\text{summation of the maximum hourly tons of slag material processed thru all the crushers})$

where:

Hc = hourly PM / PM-10 emissions for crushers (lbs/hr)

$A_{total} = A_t + A_f + A_s + A_c$

where:

Atotal = total annual emissions for all transfer points, feeder, screens and crushers

At, Af, As, and Ac shall be found individually through the equations for Ht, Hf, Hs and Hc and replacing the hourly production rates by annual production rates.

**F. Miscellaneous Requirements**

1. By request of the applicant and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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**Facility ID: 1409010908 Emissions Unit ID: F003 Issuance type: Final State Permit To Operate**

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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>
Oxygen lancing operation (2 lancing stations) with carbon dioxide shielding	OAC rule 3745-31-05(A)(3) (PTI 14-05037) Synthetic Minor to avoid NSR Offset Policy and Title V	5.6 lbs PM/hr, 5.5 TPY PM as a rolling, 12-month summation  3.2 lbs PM-10/hr, 3.2 TPY PM-10 as a rolling, 12-month summation  See terms A.2.a, A.2.c and B.1.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 (B). The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See term A.2.b.
	OAC rule 3745-17-07(B)(1)	
	OAC rule 3745-17-08(B)	
<b>2. Additional Terms and Conditions</b>		
(a) Visible particulate emissions from this emissions unit shall not exceed 10 percent opacity, as a three-minute average. The permittee shall employ carbon dioxide shielding at all times the oxygen lancing torch is in operation to minimize or eliminate the visible emissions of fugitive dust. The hourly emission limitations specified above are based upon the emissions unit's potentials to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.		
<b>B. Operational Restrictions</b>		
1. The maximum amount of tundish lanced for the emissions unit shall not exceed 39,000 tons per year based upon a rolling, 12-month summation.		
<b>C. Monitoring and/or Record Keeping Requirements</b>		
1. The permittee shall maintain monthly records of the following:		
a. the amount of tundish lanced, in tons; and b. the rolling, 12-month summation of the monthly amounts of tundish lanced.		
2. The permittee shall maintain the following daily records for each day this emissions unit is in operation:		
a. the number of hours the emissions unit was in operation; b. whether or not the carbon dioxide shielding was being employed at all times during oxygen lancing; and c. the amount of carbon dioxide used.		
3. The permittee shall perform USEPA Method 9 visible emissions readings for this emissions unit on a quarterly basis while oxygen lancing is occurring.		
4. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of tundish material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in Term E.3). This shall include the information for the current month and the preceding eleven months.		
<b>D. Reporting Requirements</b>		
1. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.		
2. The permittee shall submit quarterly deviation (excursion) that identify all exceedances of the rolling, 12-month limitation for the amount of tundish lanced.		
3. The permittee shall submit quarterly reports that include the following:		
a. An identification of each inspection that was not performed by the required frequency. b. A summary of the Method 9 visible emissions readings as required by C.3. c. An identification of each exceedance of the rolling 12-month tundish material and/or PM/PM-10 emissions limitations. d. A summary of the time periods when the carbon dioxide shielding was not being employed during oxygen lancing.		
<b>E. Testing Requirements</b>		
1. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.		
2. Compliance with the PM / PM-10 emissions limitations shall be based on the emission factor of 2.8 lb PM /ton of tundish lanced and 1.624 lb PM-10/ ton lanced, the hourly and annual production rates, and an assumed 90% control efficiency for CO2 shielding.		
3. Compliance with the tundish lanced limitation in term B.1. shall be determined by the record keeping in term C.1.		
<b>F. Miscellaneous Requirements</b>		
1. By request of the permittee, and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.		

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Facility ID: 1409010908 Emissions Unit ID: F004 Issuance type: Final State Permit To Operate

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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>
Kish and mill scale processing plant	OAC rule 3745-31-05(A)(3) (PTI 14-04853) Synthetic Minor to avoid NSR Offset Policy and Title V	1.29 lbs PM/hr, 0.94 TPY PM as a rolling, 12-month summation
		0.61 lb PM-10/hr, 0.45 TPY PM-10 as a rolling, 12-month summation
		See terms A.2.a - A.2.c and B.1.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B). The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See term A.2.d.
	OAC rule 3745-17-07(B)(1)	
	OAC rule 3745-17-08(B)	

**2. Additional Terms and Conditions**

- (a) The equipment that are covered by this permit and subject to the above-mentioned requirements are listed below:
  - i. All conveyors (7) and chutes (1) in the kish and mill scale processing plant, and the associated transfer points.
  - ii. Feed hopper.
  - iii. SECO 5' x 12' double deck screen.
  - iv. Single deck screen.  
Visible particulate emissions from each screen, conveyor and transfer point shall not exceed 10 percent opacity, as a six-minute average.  
The hourly emission limitations outlined above are based upon the emissions units potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.  
Water sprays shall be employed at the feed hopper and the screens, at all times this emissions unit is in operation, to minimize or eliminate visible emissions of fugitive dust and to ensure compliance with the visible emissions limitation.

**B. Operational Restrictions**

1. The maximum amount of kish processed for this emissions unit shall not exceed 216,000 tons per year as a rolling, 12-month summation. The maximum amount of mill scale processed shall not exceed 225,000 tons per year as a rolling, 12-month summation.

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

1. The permittee shall perform daily inspections of the water sprays to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
2. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and documentation of the date, time and results of the evaluation. Should visible emission observations indicate a potential or actual violation of the visible emissions limitations, the permittee shall perform one or more of the following until all of the normal control measures are restored:

- a. utilize portable water sprays at the affected locations;
  - b. shut down the affected sources until repairs are made;
  - c. increase water flow to "upstream" conveyors to ensure that slag maintains sufficient moisture to prevent visible emissions violations at the affected locations.
3. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for all the screens, conveyors, and transfer points associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.
  4. The permittee shall maintain monthly records of the following:
    - a. the amounts of kish and mill scale processed, in tons; and
    - b. the rolling, 12-month summations of the monthly amounts of kish and mill scale processed.
  5. The permittee shall maintain monthly records of the updated rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.2). This shall include the information for the current month and the preceding eleven months.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling, 12-month kish and mill scale throughput limitations and the PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total kish and mill scale processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
2. Compliance with the hourly and annual PM-10 emissions limitations shall be determined using the following equations and emissions factors:

Conveyor transfer points : 0.000048 lb PM-10/ton material processed, 0.000101 lb ton material processed. (based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

Feeder loading : 0.000531 lb PM-10/ton material processed, 0.001122 lb PM/ton material processed. (Based on AP-42, Section 13.2.4.3, 1/95, U=7.17 mph, M = 0.92%, 90% control for watering)

Screening : 0.00084 lb PM-10/ton material processed, 0.001764 lb PM/ton material processed. (Based on AP-42, Table 11.19.2-2, 1/95, PM = 2.1 x PM-10)

$H_{total} = H_t + H_f + H_s$

where:

$H_{total}$  = total hourly emissions for all transfer points, feeder, and screens

$H_t$ ,  $H_f$ , and  $H_s$  shall be found individually through the following equations.

Transfer points:

$H_t$  (PM-10) = (0.000048 lb PM-10/ton) x summation of the maximum tons of kish and mill scale processed thru all the transfer points

$H_t$  (PM) = ( 0.000101 lb PM/ton) x summation of the maximum tons of kish and mill scale processed thru all transfer points

where:

$H_t$  = hourly PM / PM-10 emissions from all the transfer points (lbs/hr)

Feeder loading:

$H_f$  (PM-10) = 0.000531 lb PM-10/ ton material x Tf

$H_f$  (PM) = 0.001122 lb PM-10/ ton material x Tf

where:

Hf = hourly PM / PM-10 emissions for feeder loading (lbs/hr)  
 Tf = maximum hourly throughput for feeder loading, tons/hr  
 Screens:

Hs (PM-10) = (0.00084 lb PM-10/ton) x Summation of the maximum tons of kish and mill scale processed thru all screens

Hs (PM) = (0.001764 lb PM/ton) x Summation of the maximum tons of kish and mill scale processed thru all screens

where:  
 Hs = hourly PM / PM-10 emissions for screens (lbs/hr)

Atotal = At + Af + As

where:

Atotal = total annual emissions for all transfer points, feeder, and screens

At, Af, and As shall be found individually through the equations for Ht, Hf and Hs and replacing the hourly production rates by annual production rates.

3. Compliance with the kish and mill scale limitation in term B.1. shall be determined by the record keeping in term C.5.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the special terms and conditions of this PTO are federally enforceable requirements.

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

Facility ID: 1409010908 Emissions Unit ID: F005 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>
BF slag dumping and material loadout pits	OAC rule 3745-35-07	5.10 TPY PM-10* 11 TPY PM*
		See term A.2.a and B.1.
	OAC rule 3745-17-07(B)(1)	* Based upon a rolling 12-month summation The visible emission limitation specified in this rule is less stringent than the visible emission limitation established pursuant OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See term A.2.b.

**2. Additional Terms and Conditions**

- (a) Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a three-minute average, except as specified by rule.  
 Each BF slag dumping and material loadout pit shall be equipped with a dedicated water spray. The permittee shall continuously apply water to the slag during all material handling, including dumping and loadout, to ensure compliance with the visible emissions limitation.

**B. Operational Restrictions**

1. The annual throughput of slag material shall not exceed 730,000 tons per year.

Compliance with the annual slag material usage limitation shall be based upon a rolling 12-month summation of the monthly slag material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of slag material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.3). This shall include the information for the current month and the preceding eleven months.
2. The permittee shall perform daily inspections of the water sprays to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
3. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:
  - a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and/or
  - c. increase water flow to ensure that the slag maintains sufficient moisture to prevent visible emissions violations.
4. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for the material dumping and loadout operations associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total slag processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the 12-month rolling slag material usage process and PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the annual PM and PM-10 emissions limitations shall be determined using the following equations and emissions factors:
 

Slag Dumping:

AP-42 Table 12.5-1, 1/95, Slag Dumping EF = 10% of hot metal transfer EF = 10% of 0.19 lb PM/ton. PM-10 = 46% = 0.00874 lb/PM -10/ton.

Material Load-out:

AP-42 Table 13.2.4.3, Eq 1, 1/95, Loadout EF =  $E = k (0.0032) [(U/5) ^ 1.3] / [(M/2) ^ 1.4]$ , k = 0.74 for PM, 0.35 for PM-10, U = 7.17 mph, m = 0.92%.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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

Facility ID: 1409010908 Emissions Unit ID: F006 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>
BOF slag pot dumping station, including the excavation of cooled material	OAC rule 3745-35-07	2.5 TPY PM-10* 5.30 TPY PM*
		See term A.2.a and B.1.
	OAC rule 3745-17-07(B)(1)	* Based upon a rolling 12-month summation The visible emission limitation specified in this rule is less stringent than the visible emission limitation established pursuant OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See term A.2.b.

**2. Additional Terms and Conditions**

- (a) Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a three-minute average, except as specified by rule.  
This emissions unit shall be equipped with a dedicated water spray. The permittee shall continuously apply water to the slag during all material handling, including dumping, excavation and loadout, to ensure compliance with the visible emissions limitation.

**B. Operational Restrictions**

1. The annual throughput of slag material shall not exceed 945,934 tons per year.  
  
Compliance with the annual slag material usage limitation shall be based upon a rolling 12-month summation of the monthly slag material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of slag material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.3). This shall include the information for the current month and the preceding eleven months.
2. The permittee shall perform daily inspections of the water sprays to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
3. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:
  - a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and/or
  - c. increase water flow to ensure that the slag maintains sufficient moisture to prevent visible emissions violations.
4. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for the material dumping, excavation and loadout operations associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions

limitations.

2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.

3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total slag processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the 12-month rolling slag material usage process and PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the annual PM and PM-10 emissions limitations shall be determined using the following equations and emissions factors:
 

Slag Dumping:

AP-42 Table 12.5-1, 1/95, Slag Dumping EF = 10% of hot metal transfer EF = 10% of 0.19 lb PM/ton. PM-10 = 46% = 0.00874 lb/PM -10/ton.

Material Loadout and Excavation:

AP-42 Table 13.2.4.3,Eq 1, 1/95, Loadout and Excavation EF = E=k (0.0032) [(U/5) ^ 1.3] / [(M/2) ^ 1.4], k = 0.74 for PM, 0.35 for PM-10, U = 7.17 mph, m = 0.92%.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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Facility ID: 1409010908 Emissions Unit ID: F007 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>
kish dumping station, including excavation of cooled material	OAC rule 3745-35-07	0.15 TPY PM-10* 0.31 TPY PM*

See term A.2.a and B.1.

OAC rule 3745-17-07(B)(1)

\* Based upon a rolling 12-month summation  
The visible emission limitation specified in this rule is less stringent than the visible emission limitation established pursuant OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-08(B)

See term A.2.b.

**2. Additional Terms and Conditions**

- (a) Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a three-minute average, except as specified by rule.  
This emissions unit shall be equipped with a dedicated water spray. The permittee shall continuously apply water to the kish during all material handling, including dumping, excavation and loadout, to ensure compliance with the visible emissions limitation.

**B. Operational Restrictions**

1. The annual throughput of kish material shall not exceed 109,500 tons per year.

Compliance with the annual kish material usage limitation shall be based upon a rolling 12-month summation of the monthly kish material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of kish material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.3). This shall include the information for the current month and the preceding eleven months.
2. The permittee shall perform daily inspections of the water sprays to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
3. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:
  - a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and/or
  - c. increase water flow to ensure that the slag maintains sufficient moisture to prevent visible emissions violations.
4. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for the material dumping, excavation and loadout operations associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total kish material processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the 12-month rolling kish material usage limitation and the PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the annual PM and PM-10 emissions limitations shall be determined using the following equations and emissions factors:

Kish Dumping:

AP-42 Table 12.5-1, 1/95, kish dumping EF = 10% of hot metal transfer EF = 10% of 0.19 lb PM/ton. PM-10 = 46% = 0.00874 lb/PM -10/ton.

Material Loadout and Excavation:

AP-42 Table 13.2.4.3, Eq 1, 1/95, Loadout and Excavation EF = E = k (0.0032) [(U/5) ^ 1.3] / [(M/2) ^ 1.4], k = 0.74 for PM, 0.35 for PM-10, U = 7.17 mph, m = 0.92%.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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

Facility ID: 1409010908 Emissions Unit ID: F008 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>
drop ball pit	OAC rule 3745-35-07	0.22 TPY PM-10* 0.47 TPY PM*  See term A.2.a and B.1.
	OAC rule 3745-17-07(B)(1)	* Based upon a rolling 12-month summation The visible emission limitation specified in this rule is less stringent than the visible emission limitation established pursuant OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See term A.2.b.

2. **Additional Terms and Conditions**
  - (a) Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a three-minute average, except as specified by rule.  
This emissions unit shall be equipped with a dedicated water spray. The permittee shall continuously apply water to the slag during all material handling, including dumping and loadout, to ensure compliance with the visible emissions limitation.

**B. Operational Restrictions**

1. The annual throughput of material shall not exceed 255,786 tons per year.  
  
Compliance with the annual material usage limitation shall be based upon a rolling 12-month summation of the monthly material throughput amounts.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation of the amount of material processed and the calculated, rolling 12-month PM and PM-10 emissions (calculated using the methodology in term E.3). This shall include the information for the current month and the preceding eleven months.
2. The permittee shall perform daily inspections of the water sprays to ensure that they are being used and are functioning properly. The permittee shall maintain records of each such inspection.
3. In the event of a failure or malfunction of a pump affecting one or more water spray locations, the permittee shall

evaluate visible emissions from such affected points upon discovery of the failure or malfunction and document the date, time and results of the evaluation. Should the evaluation indicate a potential or actual violation of the visible emissions limitation, the permittee shall perform one or more of the following until all of the normal control measures are restored and document the corrective actions taken:

- a. utilize portable water sprays at affected locations;
  - b. shut down the affected sources until repairs are made; and/or
  - c. increase water flow to ensure that the slag maintains sufficient moisture to prevent visible emissions violations.
4. The permittee shall perform USEPA Method 9 visible emissions readings on a monthly basis for the material dumping and loadout operations associated with the emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. Each day when the daily inspection of the water sprays was not performed.
  - b. Each exceedance of the rolling 12-month slag material throughput limitation and PM/PM-10 emissions limitations.
2. The permittee shall submit quarterly reports that include the following:
  - a. An identification of each inspection that identifies an individual water spray as malfunctioning or nonfunctioning, along with an explanation of the source of the malfunction as well as the necessary corrective action(s) that were taken.
  - b. The date(s) that corrective actions were taken and replacement or repair parts were ordered and installed for a water spray identified in D.2.a, above.
  - c. A summary of the results of all Method 9 visible emissions readings required by term C.4

The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.
3. By January 31 of each year, the permittee shall submit an annual report that summarizes the following:
  - a. the total material processed by this emissions unit; and
  - b. the total PM & PM-10 emissions for the calendar year.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the 12-month rolling material usage limitation and the PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emissions limitations shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
3. Compliance with the annual PM and PM-10 emissions limitations shall be determined using the following equations and emissions factors:

Slag Material to Dropball Pit:

AP-42 Table 13.2.4.3, 1/95,  $EF = k (0.0032) [(U/5)^{1.3}] / [(M/2)^{1.4}]$ ,  $k = 0.74$  for PM,  $0.35$  for PM-10,  $U = 7.17$  mph,  $m = 0.92\%$ .

PM emissions = PM EF x annual production rate x (1-[CE/100]) / 2000

PM10 emissions = PM10 EF x annual production rate x (1-[CE/100]) / 2000  
Dropball Operation on Slag:

AP-42 Table 11.19.2-2, 1/95

tertiary crushing controlled EF PM10=0.00059 lb PM/ton. PM = 2.1 x PM10

PM emissions = PM EF x annual production rate / 2000

PM10 emissions = PM10 EF x annual production rate / 2000  
Scrap Loading to Railcars:

AP-42 Table 11.19.2-2, 1/95

transfer point uncontrolled PM10 EF = 0.0014lb PM10/ton. PM = 2.1 x PM10

PM emissions = PM EF x annual production rate / 2000

PM10 emissions = PM10 EF x annual production rate / 2000  
BOF Slag Material to Process:

AP-42 Table 13.2.4.3, 1/95,  $EF = k (0.0032) [(U/5)^{1.3}] / [(M/2)^{1.4}]$ ,  $k = 0.74$  for PM,  $0.35$  for PM-10,  $U = 7.17$  mph,  $m = 0.92\%$ .

PM emissions = PM EF x annual production rate x (1-[CE/100]) / 2000

PM10 emissions = PM10 EF x annual production rate x (1-[CE/100]) / 2000

In the above-mentioned equations, the control efficiency [CE] is assumed to be 90%.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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

Facility ID: 1409010908 Emissions Unit ID: F009 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>
Load-in and load-out of storage piles and wind erosion from storage piles (see A.2.a for identification of storage piles)	OAC rule 3745-35-07	Combined emissions from all operations associated with this emissions unit shall not exceed the following limitations:  7.40 TPY PM-10* 15.62 TPY PM*  There shall be no visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period.  See B.1.  * Based upon a rolling 12-month summation
	OAC rule 3745-17-07 (B)(6)	Less stringent than the visible emissions limitation established pursuant to OAC rule 3745-35-07.
	OAC rule 3745-17-08 (B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.b, A.2.c, A.2.d and A.2.f)

**2. Additional Terms and Conditions**

- (a) The storage piles that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

Unprocessed BF and BOF slag  
 The permittee shall employ reasonably available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the load-in and load-out material(s) with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.  
 The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.  
 The permittee shall employ reasonably available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat each storage pile with water and/or any other suitable dust suppression chemicals via the spray tower at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit

the permittee from employing additional control measures to ensure compliance.

The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**B. Operational Restrictions**

1. The annual throughput of slag material shall not exceed 945,934 tons per year.

Compliance with the annual slag material usage limitation shall be based upon rolling 12-month summations of the slag material throughputs.

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation for the unprocessed BF and BOF slag material processed along with the rolling 12-month PM and PM-10 emissions (calculated using the equation in term E).

2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

storage pile identification:

all storage piles

minimum load-in inspection frequency:

twice daily during operation

3. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

storage pile identification:

all storage piles

minimum load-out inspection frequency:

twice daily during operation

4. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

storage pile identification:

all storage piles

minimum wind erosion inspection frequency:

daily

5. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

6. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

7. The permittee shall maintain records of the following information:

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

8. The permittee shall perform USEPA Method 22 visible emissions readings on a monthly basis for each storage pile [load-in, load-out, and wind erosion] associated with this emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify each exceedance of the rolling 12-month slag material and PM/PM-10 emissions limitations.
2. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
4. The permittee shall submit quarterly reports that include summaries of the results of all Method 22 visible emissions readings required by term C.8.  
The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the 12-month rolling slag material usage process and PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.1.
2. Compliance with the visible emission limitations for the storage piles identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
3. Compliance with the annual PM and PM-10 emissions limitations shall be determined using the following equations and emission factors:

Material Load-in:

AP42 13.2.4-3, 1/95,  $E = k(0.0032) \times [(U/5)^{1.3}] / [(M/2)^{1.4}]$ ,  $k=0.74$  for PM, 0.35 for PM10,  $U=7.17$  mph,  $M=0.92$  for unprocessed material, 3.6 for processed material, 4.8% for mill scale, 4% for unprocessed mill scale scrap.

Material Loadout:

AP42 13.2.4-3, 1/95,  $E = k(0.0032) \times [(U/5)^{1.3}] / [(M/2)^{1.4}]$ ,  $k=0.74$  for PM, 0.35 for PM10,  $U=7.17$  mph,  $M=0.92$  for unprocessed material, 3.6 for processed material, 4.8% for mill scale, 4% for unprocessed mill scale scrap.

Wind Erosion (from slag piles only):

$E = 1.7 \times (s/1.5) \times [(365-p)/235] \times (f/15)$  lb/day/acre,  $s=1.5$ ,  $p=134$ ,  $f=30\%$

PM10 emissions = 50% of PM emissions per AP-42 13.2.5-3, 1/95

Total PM and PM10 emissions = emissions from material load-in + emissions from material loadout + emissions from wind erosion from slag piles.

**F. Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.

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

**Facility ID: 1409010908 Emissions Unit ID: F010 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>
Paved and unpaved roadways and parking areas (see A.2.a)	OAC rule 3745-35-07	2.68 TPY PM-10* 12.56 TPY PM*
		There shall be no visible particulate emissions from the paved roadways except for a period of time not to exceed one minute during any 60-minute observation period.
		There shall be no visible particulate emissions from the unpaved roadways except for a period of time not to exceed three minutes during any 60-minute observation period.
	OAC rule 3745-17-07 (B)(4)	* Based upon a rolling 12-month summation Less stringent than the visible emissions limitations established pursuant to OAC rule 3745-35-07
	OAC rule 3745-17-08 (B), (B)(8), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c, A.2.d, A.2.e, A.2.h and A.2.i)

**2. Additional Terms and Conditions**

- (a) The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:
  - paved roadways:
    - all
  - paved parking areas:
    - all

The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

  - unpaved roadways:
    - all
  - unpaved parking areas:
    - all

The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by flushing with water, sweeping, and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**B. Operational Restrictions**

1. None

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

1. The permittee shall maintain monthly records of the updated rolling, 12-month summation for the PM and PM-10 emissions (calculated using the calculations in Term E). This shall include the information for the current month and the preceding eleven months.
2. Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and each parking area in accordance with the following frequencies:  
  
paved roadways and parking areas:  
  
all  
  
minimum inspection frequency:  
  
twice daily during operation  
  
unpaved roadways and parking areas:  
  
all  
  
minimum inspection frequency:  
  
twice daily during operation
3. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.  
  
The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.
5. The permittee shall perform USEPA Method 22 visible emissions readings on a monthly basis for each paved and unpaved roadway segment and parking area comprising this emissions unit. The permittee shall maintain records of all the visible emission readings.

**D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The permittee shall submit quarterly deviation reports that each exceedance of the rolling 12-month PM/PM-10 emissions limitations.
3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
4. The permittee shall submit quarterly reports that include summaries of the results of all Method 22 visible emissions readings required by term C.5.  
  
The quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.
2. Compliance with the 12-month rolling PM/PM-10 emissions limitations shall be demonstrated by the record keeping requirement in term C.5.

3. Compliance with the annual PM/PM10 emissions limitations shall be determined using the following equations and emission factors:

Unpaved Roadways:

AP42, 13.2.2.2 Eq(1), 9/98

$E = ((k)(S/12)^a (W/3)^b) / ((M/0.2)^c (s/15))$ , k = 10 lb/VMT for PM, 2.6 lbs/VMT for PM10, a = 0.8, b = 0.5, c = 0.4, S = 5.56 mph, W = 53.06 tons, M = 3.6%, s = 1.5%.

Paved Roadways:

AP42, 13.2.1-3, 9/98

$E = (k)(sL/2)^{.65} (W/3)^{1.5}$ , k = 0.082 lb/VMT for PM, 0.016 lb/VMT for PM10, sL = 0.4 g/m<sup>2</sup>, W = 44.31 tons.

F. **Miscellaneous Requirements**

1. By request of the permittee and pursuant to OAC rule 3745-35-07, all the terms and conditions of this permit are federally enforceable requirements.