



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

6/2/2010

GLENN HUNDERTMARK
Harsco Metals
8050 ROWAN RD. STE 600
PO BOX 5003
CRANBERRY TWP, PA 16066

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0278000677
Permit Number: P0106283
Permit Type: Initial Installation
County: Trumbull

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-NEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Harsco Metals**

Facility ID: 0278000677
Permit Number: P0106283
Permit Type: Initial Installation
Issued: 6/2/2010
Effective: 6/2/2010
Expiration: 3/23/2020



Division of Air Pollution Control
Permit-to-Install and Operate
for
Harsco Metals

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
2. Who is responsible for complying with this permit? 4
3. What records must I keep under this permit? 4
4. What are my permit fees and when do I pay them?..... 4
5. When does my PTIO expire, and when do I need to submit my renewal application? 5
6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
7. What reports must I submit under this permit? 5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 6
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
13. Can I transfer this permit to a new owner or operator?..... 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7
15. What happens if a portion of this permit is determined to be invalid? 7
B. Facility-Wide Terms and Conditions..... 8
C. Emissions Unit Terms and Conditions 10
1. F009, Warrior 1800 11

Authorization

Facility ID: 0278000677
Application Number(s): A0039447
Permit Number: P0106283
Permit Description: Slag Processing Plant and Diesel Electrical Generator (Warrior 1800)
Permit Type: Initial Installation
Permit Fee: \$1,250.00
Issue Date: 6/2/2010
Effective Date: 6/2/2010
Expiration Date: 3/23/2020
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Harsco Metals
1040 PINE AVE
Warren, OH 44482

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

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087
(330)425-9171

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Chris Korleski
Director



Authorization (continued)

Permit Number: P0106283

Permit Description: Slag Processing Plant and Diesel Electrical Generator (Warrior 1800)

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

Emissions Unit ID:	F009
Company Equipment ID:	Warrior 1800
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

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

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

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

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

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

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. F009, Warrior 1800

Operations, Property and/or Equipment Description:

Slag Processing Plant and Diesel Electrical Generator (Warrior 1800)

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
<i>(slag processing plant)</i>		
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed 0.9 ton per year (TPY) as a rolling 12-month summation. Particulate Matter less than 10 micrometers in diameter (PM ₁₀) shall not exceed 0.4 TPY as a rolling 12-month summation. See b)(2)g. Slag throughput restriction: c)(1).
b.	OAC rule 3745-31-05(E), as effective 12/01/06	See b)(2)h.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(B)	See b)(2)e.
d.	OAC rule 3745-17-08(B)	See b)(2)f.
<p>(82 KW (109 HP) diesel engine)</p> <p>2007 to 2011 model year or earlier, stationary compression ignition (CI) internal combustion engine (ICE); less than 10 liters per cylinder and greater than or equal to 100 HP and less than 175 HP; certified to the 40 CFR 89.112 Tier 3 exhaust emission standards in Table 1</p>		
e.	40 CFR Part 60, Subpart IIII 40 CFR 60.4204(b) 40 CFR 60.4201(a) Table 1 to 40 CFR 89.112, Tier 3 ORC 3704.03(T) (BAT)	0.30 gram PM/kW-hr 4.0 grams NOx + NMHC/kW-hr 5.0 grams CO/kW-hr See terms b)(2)(i through k)
f.	40 CFR 60.4207(a) 40 CFR 80.510(a) ORC 3704.03(T) (BAT)	The sulfur content of the diesel fuel burned in this emissions unit shall not exceed 500 ppm per-gallon of oil or 0.05% sulfur by weight. See term b)(2)k.
g.	40 CFR 60.4207(b) 40 CFR 80.510(b) ORC 3704.03(T) (BAT)	Beginning 10/01/10 the sulfur content of the diesel fuel burned in this emissions unit shall not exceed 15 ppm per-gallon of oil or 0.0015% sulfur by weight. See term b)(2)k.
h.	40 CFR 89.113 (certified by manufacturer)	20% opacity during the acceleration mode 15% opacity during the lugging mode 50% opacity during the peaks in either the acceleration or lugging modes
i.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except as specified by rule.
j.	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established for PE pursuant to



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		40 CFR Part 60, Subpart IIII.
k.	40 CFR 63 Subpart ZZZZ 40 CFR 63.6590(c)	An area source operating in compliance with Part 60 Subpart IIII is the demonstration of compliance for 40 CFR 63 Subpart ZZZZ.

(2) Additional Terms and Conditions

- a. The operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:
 - i. slag feed hopper
 - ii. screen
 - iii. conveyors and associated transfer points

- b. The permittee shall employ best available control measures for the above-identified operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the submitted permit application, the permittee has committed to perform the following control measure to ensure compliance:

Operations:

screen, conveyors and associated transfer points

Control measures:

application of sufficient water, as needed, to control dust

Operations:

load-in operations at slag feed hopper

Control measures:

Minimize drop heights and application of sufficient water, as needed, to control dust

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

- c. For each operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented at all times during operation. If the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that additional control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements, such additional control measures shall be implemented immediately. Any required implementation of the additional control measure(s) shall continue during operation until further observation confirms that use of these additional control measure(s) is unnecessary.

- d. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit are appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- e. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- f. This emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-07(B).
- g. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limitations/control measures no longer apply.
- h. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install P0106025 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. See b)(2)a through b)(2)d and c)(1).
- i. The stationary compression ignition (CI), internal combustion engine (ICE) is subject to and shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart IIII, the standards of performance for stationary CI, ICE.
- j. The stationary CI, ICE has been or shall be purchased certified by the manufacturer to emission standards as stringent as those identified in 40 CFR 60.4201(a) and found in Tier 3 of 40 CFR 89.112, Table 1, for engines greater than or equal to 100 horsepower (75 kilowatt) and less than 175 horsepower (130 kilowatt), and certified to the opacity standards found in 40 CFR 89.113.
- k. The quality of the diesel fuel burned in this emissions unit shall meet the following specifications on an "as received" basis:
 - i. prior to October 1, 2010, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.05 pound sulfur dioxide/MMBtu actual heat input; and 500 ppm sulfur per-gallon of oil or 0.05% sulfur by weight;

- ii. beginning on and after October 1, 2010, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.0015 pound sulfur dioxide/MMBtu actual heat input; and 15 ppm sulfur per-gallon of oil or 0.0015% sulfur by weight;
- iii. a cetane index of 40 or an aromatic content of 35 volume percent; and
- iv. greater than 135,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

c) **Operational Restrictions**

- (1) The permittee shall not process more than 320,000 TPY of slag per rolling 12-month period.
- (2) The stationary CI, ICE shall be installed, operated, and maintained according to the manufacturer's specifications, written instructions, and procedures, and/or according to procedures developed by the permittee that have been approved by the engine manufacturer in writing, over the entire life of the engine. The permittee shall operate and maintain the stationary CI ICE to achieve the Tier 3 emission standards in Table 1 to 40 CFR 89.112, as required per 40 CFR 60.4204(b).
- (3) Diesel fuel burned in the CI, ICE shall not exceed the tiered limits for sulfur as specified by 40 CFR 80.510:
 - a. prior to October 1, 2010, the sulfur content of the diesel fuel shall not exceed 500 ppm per-gallon of oil or 0.05% sulfur by weight; and
 - b. beginning on and after October 1, 2010 the maximum sulfur content of diesel fuel shall not exceed 15 ppm per-gallon of oil or 0.0015% sulfur by weight.

The permittee of the pre-2011 model year stationary CI ICE may petition the Director for approval to use remaining non-compliant fuel that does not meet the sulfur content requirements after 10/01/10, for the purpose of using up existing inventories.

- (4) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) Except as otherwise provided in this section, for operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>Operation(s)</u>	<u>Minimum inspection frequency</u>
load-in operations at slag feed hopper	daily, when operating
screen, conveyers and associated transfer points	daily, when operating

- (2) The above-mentioned inspections shall be performed during representative, normal operating conditions.
- (3) The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- (4) The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented; and
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(4)d shall be kept separately for each operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (5) The permittee shall maintain monthly records of the following information:
 - a. the amount of slag processed, in tons per month; and
 - b. the rolling, 12-month summation of slag processed, calculated by adding the current month's ton of slag processed to the preceding eleven calendar months.
- (6) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of the diesel oil received and the oil supplier's (or permittee's) analyses for sulfur content, in parts per million per-gallon (40 CFR 80.510) or percent by weight. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR 80.580, using the appropriate ASTM methods. These records shall be retained for a minimum of three years and shall be available for inspection by the Director or his/her representative.
- (7) The permittee shall maintain the manufacturer's certification, to the applicable Tier 3 emission standards in Table 1 of 40 CFR 89.112, on site or at a central location for all facility ICE and it shall be made available for review upon request. If the manufacturer's certification is not kept on site, the permittee shall maintain a log for the location of each ICE and it shall identify the agency-assigned emissions unit number, the manufacturer's identification number, and the identification number of the certificate. The manufacturer's operations manual and any written instructions or procedures developed by the permittee and approved by the manufacturer shall be maintained at the same location as the ICE.
- (8) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the permittee shall keep

records of the date, time, and any corrective action(s) taken in response to the notification from the backpressure monitor, that the high backpressure limit of the engine has been approached or exceeded.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (2) The permittee shall identify in the annual permit evaluation report any period of time (date and number of hours) that the quality of oil burned in this emissions unit did not meet the requirements established in 40 CFR 80.510, based upon the required fuel records; and the amount of non-compliant fuel burned on each such occasion.
- (3) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the permittee shall include in the PER any records of the date, time, and any corrective action(s) taken in response to the notification from the monitor that the backpressure has been approached or exceeded.
- (4) The permittee shall identify in the annual permit evaluation report any period of time (dates) when slag processed exceeded the throughput restriction.
- (5) The permittee shall identify in the annual permit evaluation report any period of time (dates):
 - a. when an inspection was not performed by the required frequency, and
 - b. when a control measure, that was to be implemented as a result of an inspection, was not implemented.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation (slag processing plant):
0.9 TPY PE as a rolling 12-month summation and
0.4 TPY PM₁₀ as a rolling 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by applying the emission factors from AP-42, Sections 11.19.2 (8/04) and 12.5-4 (reformatted 1/95, 10/86) as follows:

$$E(TPY) = \left(\frac{1}{2000}\right) \times \sum_i^n EF \times PWR \times \left(1 - \frac{ER}{100}\right)$$

Where:

E = emission rate (TPY), summation of emissions from all operations listed in b)(2)a;

i = operation type;

n = number of operations;

PWR = process weight rate, in tons per year, for each operation type listed in b)(2)a;

ER = overall emission reduction efficiency, in %, for each operation type listed in b)(2)a; and

EF = emission factor from AP-42, in lb/ton, for each operation type listed in b)(2)a. EFs are listed below:

- i. EF = 0.026 PM, 0.013 PM₁₀, Table 12.5-4 (each slag load-in hopper, ER = 90%)
- ii. EF = 0.00014 PM, 0.000046 PM₁₀, Table 11.19.2-2 (each conveyor transfer point, ER = 0%)
- iii. EF = 0.0022 PM, 0.00074 PM₁₀, Table 11.19.2-2 (each screen, ER = 0%)

EFs for conveyor transfer point and screening are based on controlled emissions. Therefore, each ER will be equal to zero (0) for those material handling operation types, when using the above equation for calculating emissions.

b. Opacity Limitation (slag processing plant):

Visible particulate emissions from this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

c. Opacity Limitation (82 KW (109 HP) diesel engine):

20% opacity during the acceleration mode

15% opacity during the lugging mode

50% opacity during the peaks in either the acceleration or lugging modes

Applicable Compliance Method:

The ICE shall be purchased certified to the opacity standards of 40 CFR 89.113.

d. Opacity Limitation (82 KW (109 HP) diesel engine):

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20 %opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

e. Emission Limitation (82 KW (109 HP) diesel engine):

0.30 gram PM/kW-hr

Applicable Compliance Method:

Compliance with the emission limitations shall be based on the manufacturer's certification and by maintaining the engine according to the manufacturer's specifications. The g/kW-hr limit is the emission limitation from Table 1 of 40 CFR 89.112, the Tier 3 exhaust emission standards for diesel engines between 100 and less than 175 horsepower (75 and 130 kilowatts).

If required, the permittee shall demonstrate compliance with the emission limitations through performance tests conducted in accordance with the provisions in term f)(1)i below.

f. Emission Limitation (82 KW (109 HP) diesel engine):

4.0 grams NO_x + NMHC/kW-hr

Applicable Compliance Method:

Compliance with the emission limitations shall be based on the manufacturer's certification and by maintaining the engine according to the manufacturer's specifications. The g/kW-hr limit is the emission limitation from Table 1 of 40 CFR 89.112, the Tier 3 exhaust emission standards for diesel engines between 100 and less than 175 horsepower (75 and 130 kilowatts).

For the purpose of reporting emissions, where the limit is for NO_x + NMHC, the NO_x and VOC emissions shall be calculated using a ratio of 74.6% NO_x to 25.4% VOC.**

4.0 g NO_x+NMHC/kW-hr x 74.6% NO_x** = 3.0 grams NO_x/kW-hr

4.0 g NO_x+NMHC/kW-hr x 25.4% NMHC** = 1.0 gram VOC/kW-hr

**This ratio is based upon the linear relationship of NO_x to NMHC from Table 1 of Subpart IIII, Table 1 from 40 CFR 89.112, to Tables 4, 5, and 6 from 1039.102.

If required, the permittee shall demonstrate compliance with the emission limitations through performance tests conducted in accordance with the provisions in term f)(1)i below.

g. Emission Limitation (82 KW (109 HP) diesel engine):

5.0 grams CO/kW-hr

Applicable Compliance Method:

Compliance with the emission limitations shall be based on the manufacturer's certification and by maintaining the engine according to the manufacturer's specifications. The g/kW-hr limit is the emission limitation from Table 1 of 40 CFR 89.112, the Tier 3 exhaust emission standards for diesel engines between 100 and less than 175 horsepower (75 and 130 kilowatts).

If required, the permittee shall demonstrate compliance with the emission limitations through performance tests conducted in accordance with the provisions in term f)(1)i below.

h. Sulfur Content Limitations for Diesel Fuel (82 KW (109 HP) diesel engine):

Sulfur content 500 ppm per-gallon or \leq 0.05% by weight sulfur in diesel fuel; and

Sulfur content 15 ppm per-gallon or \leq 0.0015% by weight sulfur beginning 10/01/10

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements for the sulfur content of each shipment of diesel oil received. If meeting the standards in 40 CFR 80.510, this calculates to approximately 0.051 lb/MMBtu prior to 10/01/10 and 0.0015 lb/MMBtu on and after 10/01/10.

i. If it is determined by the Ohio EPA that a compliance demonstration is required through performance testing, it shall be conducted using one of the following test methods or procedures:

(a) in accordance with 40 CFR 60.4212, conduct the exhaust emissions testing using the in-use testing procedures found in 40 CFR Part 1039, Subpart F, measuring the emissions of the regulated pollutants as specified in 40 CFR 1065; or

(b) in accordance with 40 CFR 60.4213, conduct exhaust emissions testing using the test methods identified in Table 7 to Subpart IIII of Part 60.

If demonstrating compliance through the in-use testing procedures in 40 CFR part 1039, Subpart F, exhaust emissions from the stationary CI ICE shall not

exceed the “not to exceed” (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112, determined from the following equation:

NTE requirement for each pollutant = $1.25 \times \text{STD}$

Where:

STD = The standard specified for the pollutant in 40 CFR 89.112.

g) Miscellaneous Requirements

(1) None.