



State of Ohio Environmental Protection Agency

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P.O. Box 1049
Columbus, OH 43216-1049

9/1/2009

GERALD ZANDER
GRAPHITE SALES INC
220 TWP RD 791
NOVA, OH 44859

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0303000138
Permit Number: P0104802
Permit Type: OAC Chapter 3745-31 Modification
County: Ashland

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Ashland-Times-Gazette. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA-NWDO; Canada

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
GRAPHITE SALES INC

Issue Date: 9/1/2009
Permit Number: P0104802
Permit Type: OAC Chapter 3745-31 Modification
Permit Description: The purpose of this permit is to account for the emissions from (2) diesel fired engines and diamond saw operations.
Facility ID: 0303000138
Facility Location: GRAPHITE SALES INC
221 TWP RD 791,
Nova, OH 44859
Facility Description: Carbon and Graphite Product Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Donald Waltermeyer at Ohio EPA DAPC, Northwest District Office, 347 North Dunbridge Road or (419)352-8461. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

The facility operates two stationary internal compression ignition engines at the site. The engines power two separate crushing processes. The engines are 160 hp and 750 hp.

3. Facility Emissions and Attainment Status:

The facility emissions will be limited by the requested federally enforceable limitations on the operating hours of each of the engines. The facility is choosing these limitations to avoid Title V applicability. The facility is located in Ashland County which is designated under attainment status.

4. Source Emissions:

The emissions from (P901) – 6 ton/hour crushing operations with 160 hp stationary internal combustion engine are limiting by 5400 operating hours per rolling, 12-month period. The emissions are calculated as follows:

Material Handling (FEL unloading, crusher, screen and transfer points):

PE (stack)*: 0.005 lbs/hr
 0.01 tons/yr

*All PE from the stack are assumed to be PM10.

PE (fug): 0.07 tons/yr
 PM10 (fug): 0.02 tons/yr

Combustion emissions:

NOx: 13.39 tons/yr
 CO: 2.89 tons/yr
 OC: 1.08 tons/yr
 SO₂: 0.89 tons/yr
 PE*: 0.95 tons/yr

*All PE from the stack are assumed to be PM10.

The emissions from (P902) – 20 ton/hour crushing operations with 750 hp stationary internal combustion engine are limiting by 1800 operating hours per rolling, 12-month period. The emissions are calculated as follows:

Material Handling (FEL unloading, crusher, screen and transfer points):

PE (stack)*: 0.004 lbs/hr
 0.004 tons/yr

*All PE from the stack are assumed to be PM10.

PE (fug): 0.78 tons/yr
 PM10 (fug): 0.29 tons/yr



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Permit Strategy Write-Up
Permit Number: P0104802
Facility ID: 0303000138

Combustion emissions:

- NOx: 16.20 tons/yr
- CO: 3.72 tons/yr
- OC: 0.48 tons/yr
- SO₂: 5.46 tons/yr
- PE*: 0.48 tons/yr

*All PE from the stack are assumed to be PM10.

5. Conclusion:

As a result of the federally enforceable restriction, NOx emissions will remain below major source thresholds.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PE (stack)	1.44
PE (fugitive)	1.79
PM10 (stack)	1.44
PM10 (fugitive)	0.76
NOx	29.59
CO	6.61
OC	1.56
SO ₂	6.35



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

DRAFT

**Air Pollution Permit-to-Install and Operate
for
GRAPHITE SALES INC**

Facility ID: 0303000138
Permit Number: P0104802
Permit Type: OAC Chapter 3745-31 Modification
Issued: 9/1/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
GRAPHITE SALES INC

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Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0303000138

Application Number(s): A0037407, A0037839

Permit Number: P0104802

Permit Description: The purpose of this permit is to account for the emissions from (2) diesel fired engines and diamond saw operations.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$800.00 *DO NOT send payment at this time - subject to change before final issuance*

Issue Date: 9/1/2009

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

GRAPHITE SALES INC
221 TWP RD 791
Nova, OH 44859

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, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

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: P0104802

Permit Description: The purpose of this permit is to account for the emissions from (2) diesel fired engines and diamond saw operations.

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

Emissions Unit ID:	F005
Company Equipment ID:	Diamond Saw
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P901
Company Equipment ID:	6 TPH Crushing operations with 160 HP engine
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P902
Company Equipment ID:	20 TPH Crushing operations with 750 HP engine
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



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Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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, Northwest 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 submitting 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 emission unit once the certification has been submitted to Ohio EPA by the authorized official.

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

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B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. F005, Diamond Saw

Operations, Property and/or Equipment Description:

Diamond saw Graphite machining area

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
a.	OAC rule 3745-31-05(A)(3)(a)	0.94 ton of fugitive particulate emissions (PE)/year 0.45 ton of fugitive particulate matter of 10 microns or less in size (PM10)/year Visible PE from fugitive dust shall not exceed twenty percent opacity as a three-minute average See b)(2)a.
b.	OAC rule 3745-17-07(B)	See b)(2)b.
c.	OAC rule 3745-17-08(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. The "Best Available Technology" (BAT) control requirements for this emissions unit have been determined to be the following:

i. the use of water while the unit is in operation;



- ii. the use of a building enclosure; and
- iii. compliance with the terms and conditions of this permit.

Nothing in [b)(2)a.i.-iii.] above shall prohibit the permittee from employing other control measures to ensure compliance.

This facility is involved in the process of product recovery of PE from this emissions unit. Although water is required for the operational design of this unit, the water that is used is also contained and the material (particulate) is separated from the resulting mixture. Therefore, the use of water was considered when determining the potential to emit for this emission unit.

- b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit).



With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

0.94 ton of fugitive PE/year

Applicable Compliance Method

The PE emission limitation was determined by multiplying an emission factor of 43 lbs PE/4000 lbs of material processed (company-supplied based upon weight measurements), by a maximum process weight rate of 4000 lbs/hr, by a maximum operating schedule of 8760 hours/yr, applying a conservative operational design efficiency of 95% for the use of water, applying a control efficiency of 90% for the use of a building enclosure and dividing by 2000 lbs/ton.

b. Emission Limitation

0.45 tons of fugitive PM10/year

Applicable Compliance Method

The PM10 emission limitation was determined by multiplying an emission factor of 43 lbs PE/4000 lbs of material processed (company-supplied based upon weight measurements), by a maximum process weight rate of 4000 lbs/hr, by a maximum operating schedule of 8760 hours/yr, by a relative ratio of 1 lbs PM10/2.11 lbs PE, applying a conservative operational design efficiency of 95% for the use of water, and applying a control efficiency of 90% for the use of a building enclosure and dividing by 2000 lbs/ton.

c. Emission Limitation

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



State of Ohio Environmental Protection Agency
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Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance U.S. EPA Method 9 of 40 CFR Part 60 Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) The terms and conditions contained in this permit for this emissions unit shall supersede all the air pollution control requirements for the emissions unit contained in the permit to install #03-5744 issued on 07/31/91.



2. P901, 6 TPH Crushing operations with 160 HP Stationary internal compression ignition engine (SI ICE)

Operations, Property and/or Equipment Description:

6 TPH Crushing and associated material handling operations with a 160 HP, diesel fired engine.

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. b)(1)b., b)(2)d., c)(2), d)(3), e)(1), f)(1)f., f)(1)h., f)(1)j., f)(1)l., and f)(1)p.

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
a.	OAC rule 3745-31-05(A)(3)(a)	<p><u>Material Handling operations</u> 0.005 lb particulate emissions (PE)/hr & 0.01 ton PE/yr from the stack serving this emissions unit [See b)(2)a.]</p> <p>Visible PE shall not exceed zero percent opacity as a six-minute average</p> <p>0.07 ton of fugitive PE/yr</p> <p>0.02 ton of fugitive particulate matter 10 microns or less in size (PM10)/yr</p> <p>Visible PE from fugitive dust shall not exceed twenty percent opacity as a three-minute average [See b)(2)k.]</p> <p>See b)(2)c.</p> <p><u>Diesel engine operations</u></p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		4.96 lbs nitrogen oxides (NOx)/hr 1.07 lbs carbon monoxide (CO)/hr 0.40 lb organic compounds (OC)/hr 0.35 lb PE/hr [See b)(2)b.] 0.33 lb sulfur dioxide (SO ₂)/hr Visible PE shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown. See b)(2)c. and c)(1)
b.	OAC rule 3745-31-05(D)	13.39 tons NOx per rolling, 12-month period 2.89 tons CO per rolling, 12-month period 1.08 tons OC per rolling, 12-month period 0.95 ton PE per rolling, 12-month period [See b)(2)b.] 0.89 tons SO ₂ per rolling, 12-month period See b)(2)d.
c.	OAC rule 3745-17-07(A)	See b)(2)e.
d.	OAC rule 3745-17-07(B)	See b)(2)f.
e.	OAC rule 3745-17-08(B)	See b)(2)g.
f.	OAC rule 3745-17-11(B)(5)(a)	0.310 lb PE per mmBtu of actual heat input
g.	OAC rule 3745-18-06(G)	See b)(2)h.
h.	OAC rule 3745-21-07(B)	See b)(2)i.
i.	OAC rule 3745-21-08(B)	See b)(2)j.

(2) Additional Terms and Conditions

- a. All particulate emissions from the stack serving this emissions unit are assumed to be PM₁₀.
- b. The emission limitation of PE due to the combustion of #2 fuel oil is more restrictive than the potential to emit of PM₁₀ using an emission factor from AP-42 Section 3.3 – Gasoline and Diesel Industrial Engines (10/96). Therefore, a limit on the emissions of PE shall be sufficient to limit the emissions of PM₁₀.



- c. The "Best Available Technology" (BAT) control requirements for this emissions unit have been determined to be the following:
 - i. the use of a baghouse achieving 95% capture and 99% control efficiencies for all unloading, crushing, screening and transfer points;
 - ii. compliance with OAC rule 17-11(B)(5)(a) and OAC rule 3745-31-05(D); and
 - iii. compliance with the terms and conditions of this permit.

Nothing in [b)(2)c.i.-iii.] above shall prohibit the permittee from employing other control measures to ensure compliance.

This facility is involved in the process of recovering PE from this emissions unit. Therefore, the use of a baghouse is factored into the determination of the potential to emit for this emission unit.

- d. This permit establishes the following federally enforceable emission limitations based on an operational restriction on the hours of operation [See c)(2)] for the purpose of limiting the potential to emit in order to avoid Title V applicability:
 - i. 13.39 tons of NO_x per rolling, 12-month period;
 - ii. 2.89 tons of CO per rolling, 12-month period;
 - iii. 1.08 ton of OC per rolling, 12-month period;
 - iv. 0.95 ton of PE per rolling, 12-month period; and
 - v. 0.89 ton of SO₂ per rolling, 12-month period.
- e. The emission limit specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).
- f. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- g. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- h. This emissions unit is exempt from requirements of OAC rule 3745-18-06(G), pursuant to OAC rule 3745-18-06(B).
- i. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until



the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

None.

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

None.

- j. The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- k. Visible emissions from the material processing equipment when processing graphite or carbon materials shall not exceed the following opacity restrictions:

Material Handling/Processing Operation	Opacity Limit
FEL unloading into vibratory feeder	20% opacity, as a 3-minute average
Crushing	20% opacity, as a 3-minute average
Screening	20% opacity, as a 3-minute average
Transfer points	20% opacity, as a 3-minute average

c) Operational Restrictions

- (1) The permittee shall only combust #2 fuel oil in this emissions unit, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98,



"Standard Specification for Fuel Oils"). The sulfur content of the distillate oil shall contain no more than 0.5 weight percent sulfur.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 5400, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	744
1-2	1,488
1-3	2,232
1-4	2,976
1-5	3,279
1-6	3,582
1-7	3,885
1-8	4,188
1-9	4,491
1-10	4,794
1-11	5,097
1-12	5,400

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

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

- (1) For each day during which the permittee burns a fuel other than #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in section c)(1). Records of fuel supplier certification shall include the following information:
 - a. the name of the oil supplier; and
 - b. a statement from the oil supplier that the oil complies with the specifications under the definition of #2 fuel oil in c)(1) above.
- (3) The permittee shall maintain monthly records of the following information:
 - a. the operating hours for each month; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.



- c. Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
- (4) Except as otherwise provided in this section, for graphite and carbon processing operations that are not adequately enclosed, the permittee shall perform inspections of such operations during representative, normal operating conditions in accordance with the following minimum frequencies:

Operation/Equipment	Minimum Inspection Frequency
FEL unloading into the feeder	Once per day of operation
Crusher	Once per day of operation
Screen	Once per day of operation
Transfer points	Once per day of operation

- (5) 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 required in section d)(5) shall be kept separately for each graphite or carbon processing operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;



- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (2) 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.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

0.005 lbs particulate emissions (PE)/hr & 0.01 tons PE/yr from the stack serving this emissions unit

Applicable Compliance Method

The hourly emission limitation was established by combining the following material handling/process operations:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate (tons/hr)	Capture Efficiency (%)	Control Efficiency (%)	Reference
FEL unloading into feeder	0.007	6	95	99	AP-42 Chapter 13, Section 13.2.4, 11/06
Crusher	0.0054	6	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Screen/Vibratory feeder (2 total)	0.025	6	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Transfer Points (6 total)	0.0030	6	95	99	AP-42 Chapter 11, Section



					11.19.2, 08/04
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The annual emission limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate* (tons/yr)	Capture Efficiency (%)	Control Efficiency (%)	Reference
FEL unloading into feeder	0.007	32,400	95	99	AP-42 Chapter 13, Section 13.2.4, 11/06
Crusher	0.0054	32,400	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Screen/Vibratory feeder (2 total)	0.025	32,400	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Transfer Points (6 total)	0.0030	32,400	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04

*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

b. Emission Limitation:

Visible PE shall not exceed zero percent opacity, as a six-minute average.

Applicable Compliance Method

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

c. Emission Limitations:

0.07 ton of fugitive PE/yr

0.02 ton of fugitive PM10/yr

Applicable Compliance Method

The PE limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate* (tons/yr)	Uncontrolled Fugitive Emissions (%)
FEL unloading into feeder	0.007	32,400	5
Crusher	0.0054	32,400	5



Screen/Vibratory feeder (2 total)	0.025	32,400	5
Transfer Points (6 total)	0.0030	32,400	5

*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

The PM10 limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PM10/ton)	Maximum Process Weight Rate* (tons/yr)	Uncontrolled Fugitive Emissions (%)
FEL unloading into feeder	0.003	32,400	5
Crusher	0.0024	32,400	5
Screen/Vibratory feeder (2 total)	0.0087	32,400	5
Transfer Points (6 total)	0.0011	32,400	5

*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

d. Emission Limitation

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

Applicable Compliance Method

If required,, compliance shall be determined through visible emission observations performed in accordance U.S. EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

e. Emission Limitation

4.96 lbs NOx/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 160 horsepower (HP) by an emission factor of 0.031 lb NOx/HP-hr [from AP-42, Section 3.3 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 7 of 40 CFR Part 60, Appendix A.



f. Emission Limitation

13.39 tons NO_x per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

g. Emission Limitation

1.07 lbs CO/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 160 horsepower (HP) by an emission factor of 0.00668 lbs CO/HP-hr [from AP-42, Section 3.3 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 10 of 40 CFR Part 60, Appendix A.

h. Emission Limitation

2.89 tons CO per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the recordkeeping requirements specified in section d)(3) of the terms and conditions of this permit.

i. Emission Limitation

0.40 lbs OC/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly recordkeeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 160 horsepower (HP) by an emission factor of 0.00247 lbs OC/HP-hr [from AP-42, Section 3.3 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 18, 25 or 25A, as applicable, of 40 CFR Part 60, Appendix A.



j. Emission Limitation

1.08 tons OC per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

k. Emission Limitation

0.33 lbs SO₂/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 160 horsepower (HP) by an emission factor of 0.00205 lbs SO₂/HP-hr [from AP-42, Section 3.3 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 6 of 40 CFR Part 60, Appendix A.

l. Emission Limitation

0.89 ton SO₂ per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

m. Emission Limitation

Visible PE shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown

Applicable Compliance Method

If required, the permittee shall demonstrate compliance by testing in accordance with Method 9 of 40 CFR Part 60, Appendix A.

n. Emission Limitation

0.35 lb PE/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly recordkeeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.



*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 160 horsepower (HP) by an emission limitation of 0.310 lbs PE/mmBtu by a conversion factor of 7000 Btu/HP-hr [from AP-42, Section 3.3 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval.

o. Emission Limitation

0.310 lb PE per mmBtu of actual heat input

Applicable Compliance Method

The lbs/mmBtu emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly recordkeeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was determined using AP-42, Section 3.3-1 (revised 10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 5 of 40 CFR Part 60, Appendix A.

p. Emission Limitation

0.95 ton PE per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the recordkeeping requirements specified in section d)(3) of the terms and conditions of this permit.

g) Miscellaneous Requirements

- (1) The terms and conditions contained in this permit for this emissions unit shall supersede all the air pollution control requirements for the emissions unit contained in the permit to install #03-4901 issued on 06/27/90.



3. P902, 20 TPH Crushing operations with 750 HP Stationary internal compression ignition engine (SI ICE)

Operations, Property and/or Equipment Description:

20 TPH Crushing and associated material handling operations with 750 HP, diesel fired engine

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. b)(1)b., b)(2)d., c)(2), d)(3), e)(1), f)(1)f., f)(1)h., f)(1)j., f)(1)l., and f)(1)p.

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
a.	OAC rule 3745-31-05(A)(3)(a)	<p><u>Material Handling operations</u> 0.004 lb particulate emissions (PE)/hr & 0.004 ton PE/yr from the stack serving this emissions unit [See b)(2)a.]</p> <p>Visible PE shall not exceed zero percent opacity as a six-minute average</p> <p>0.78 ton of fugitive PE/yr</p> <p>0.29 ton of fugitive particulate matter 10 microns or less in size (PM10)/yr</p> <p>Visible PE from fugitive dust shall not exceed twenty percent opacity as a three-minute average [See b)(2)k.]</p> <p>See b)(2)c.</p> <p><u>Diesel engine operations</u></p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		18.00 lbs nitrogen oxides (NOx)/hr 4.13 lbs carbon monoxide (CO)/hr 0.53 lb organic compounds (OC)/hr 0.33 lb PE/hr [See b)(2)b.] 6.07 lbs sulfur dioxide (SO ₂)/hr Visible PE shall not exceed 10% opacity, as a 6-minute average, except during start-up and shutdown See b)(2)c. and c)(1)
b.	OAC rule 3745-31-05(D)	16.20 tons NOx per rolling, 12-month period 3.72 tons CO per rolling, 12-month period 0.48 ton OC per rolling, 12-month period 0.30 ton PE per rolling, 12-month period [See b)(2)b.] 5.46 tons SO ₂ per rolling, 12-month period See b)(2)d.
c.	OAC rule 3745-17-07(A)	See b)(2)e.
d.	OAC rule 3745-17-07(B)	See b)(2)f.
e.	OAC rule 3745-17-08(B)	See b)(2)g.
f.	OAC rule 3745-17-11(B)(5)(b)	0.062 lb PE per mmBtu of actual heat input
g.	OAC rule 3745-18-06(G)	See b)(2)h.
h.	OAC rule 3745-21-07(B)	See b)(2)i.
i.	OAC rule 3745-21-08(B)	See b)(2)j.

(2) Additional Terms and Conditions

- a. All PE from the stack serving this emissions unit are assumed to be PM10.
- b. The emission limitation of PE due to the combustion of #2 fuel oil is more restrictive than the potential to emit of PM10 using an emission factor from AP-42 Section 3.4 – Large Stationary Diesel and All Stationary Dual Fuel Engines (10/96). Therefore, a limit on the emissions of PE shall be sufficient to limit the emissions of PM10.



- c. The "Best Available Technology" (BAT) control requirements for this emissions unit have been determined to be the following:
 - i. the use of a baghouse achieving 95% capture and 99% control efficiencies for various unloading, crushing and transfer points;
 - ii. compliance with OAC rule 17-11(B)(5)(b) and OAC rule 3745-31-05(D); and
 - iii. compliance with the terms and conditions of this permit.

Nothing in [b)(2)a.i.-iii.] above shall prohibit the permittee from employing other control measures to ensure compliance.

This facility is involved in the process of recovering PE from this emissions unit. Therefore, the use of a baghouse is factored into the determination of the potential to emit for this emission unit.

- d. This permit establishes the following federally enforceable emission limitations based on an operational restriction on the hours of operation [See c)(2)] for the purpose of limiting the potential to emit in order to avoid Title V applicability:
 - i. 16.20 tons of NO_x per rolling, 12-month period;
 - ii. 3.72 tons of CO per rolling, 12-month period;
 - iii. 0.48 ton of OC per rolling, 12-month period;
 - iv. 0.30 ton of PE per rolling, 12-month period; and
 - v. 5.46 ton of SO₂ per rolling, 12-month period.
- e. The emission limit specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).
- f. This emissions unit is exempt from the visible PE limitation for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.
- g. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- h. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G), pursuant to OAC rule 3745-18-06(B).
- i. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until



the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

None.

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

None.

- j. The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- k. Visible emissions from the material processing equipment when processing graphite or carbon materials shall not exceed the following opacity restrictions:

Material Handling/Processing Operation	Opacity Limit
FEL loading and unloading	20% opacity, as a 3-minute average
Crushing	20% opacity, as a 3-minute average
Screening	20% opacity, as a 3-minute average
Transfer points	20% opacity, as a 3-minute average

c) Operational Restrictions

- (1) The permittee shall only combust #2 fuel oil in this emissions unit, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98,



"Standard Specification for Fuel Oils"). The sulfur content of the #2 fuel oil shall contain no more than 0.5 weight percent sulfur.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 1800, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	744
1-2	840
1-3	936
1-4	1,032
1-5	1,128
1-6	1,224
1-7	1,320
1-8	1,416
1-9	1,512
1-10	1,608
1-11	1,704
1-12	1,800

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

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

- (1) For each day during which the permittee burns a fuel other than #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in section c)(1). Records of fuel supplier certification shall include the following information:
 - a. the name of the oil supplier; and
 - b. a statement from the oil supplier that the oil complies with the specifications under the definition of #2 fuel oil in c)(1) above.
- (3) The permittee shall maintain monthly records of the following information:
 - a. the operating hours for each month; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.



- c. Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
- (4) Except as otherwise provided in this section, for graphite and carbon processing operations that are not adequately enclosed, the permittee shall perform inspections of such operations during representative, normal operating conditions in accordance with the following minimum frequencies:

Operation/Equipment	Minimum Inspection Frequency
FEL loading and unloading	Once per day of operation
Crusher	Once per day of operation
Screen	Once per day of operation
Transfer points	Once per day of operation

- (5) 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 required in section d)(5) shall be kept separately for each graphite or carbon processing operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;



- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (2) 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.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

0.004 lb PE/hr & 0.004 tons PE/yr from the stack serving this emissions unit

Applicable Compliance Method

The hourly emission limitation was established by combining the following material handling/process operations:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate (tons/hr)	Capture Efficiency (%)	Control Efficiency (%)	Reference
FEL loading and unloading (2 total controlled)	0.007	20	95	99	AP-42 Chapter 13, Section 13.2.4, 11/06
FEL loading and unloading (2 total uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 13, Section 13.2.4, 11/06
Crusher	0.0054	20	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Screen (uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 11, Section 11.19.2, 08/04



Transfer Points (controlled)	0.0030	20	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Transfer Points (uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 11, Section 11.19.2, 08/04

The annual emission limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate* (tons/yr)	Capture Efficiency (%)	Control Efficiency (%)	Reference
FEL loading and unloading (2 total controlled)	0.007	36,000	95	99	AP-42 Chapter 13, Section 13.2.4, 11/06
FEL loading and unloading (2 total uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 13, Section 13.2.4, 11/06
Crusher (controlled)	0.0054	36,000	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Screen (uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 11, Section 11.19.2, 08/04
Transfer Points (controlled)	0.0030	36,000	95	99	AP-42 Chapter 11, Section 11.19.2, 08/04
Transfer Points (uncontrolled)	n/a	n/a	n/a	n/a	AP-42 Chapter 11, Section 11.19.2, 08/04

*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

b. Emission Limitation

Visible PE shall not exceed zero percent opacity as a six-minute average

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60 Appendix A.

c. Emission Limitation

0.78 ton of fugitive PE/yr

0.29 ton of fugitive PM10/yr



Applicable Compliance Method

The PE limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PE/ton)	Maximum Process Weight Rate* (tons/yr)	Uncontrolled Fugitive Emissions (%)
FEL loading and unloading (2 controlled)	0.007	36,000	5
FEL loading and unloading (2 uncontrolled)	0.007	36,000	100
Crusher (controlled)	0.0054	36,000	5
Screen (uncontrolled)	0.025	36,000	100
Transfer Points (controlled)	0.0030	36,000	5
Transfer Points (uncontrolled)	0.0030	36,000	100

*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

The PM10 limitation was established by combining the following material handling/process operations and dividing by 2000 lbs/ton:

Operation/Equipment	Emission Factor (lbs PM10/ton)	Maximum Process Weight Rate* (tons/yr)	Uncontrolled Fugitive Emissions (%)
FEL loading and unloading (2 controlled)	0.003	36,000	5
FEL loading and unloading (2 uncontrolled)	0.003	36,000	100
Crusher (controlled)	0.0024	36,000	5
Screen (uncontrolled)	0.0087	36,000	100
Transfer Points (controlled)	0.0011	36,000	5
Transfer Points (uncontrolled)	0.0011	36,000	100



*The maximum annual process weight rate is calculated by multiplying the maximum hourly process weight rate by the hourly limitation for the diesel engine.

d. Emission Limitation

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

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance U.S. EPA Method 9 of 40 CFR Part 60 Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

e. Emission Limitation

18.00 lbs NOx/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 750 horsepower (HP) by an emission factor of 0.024 lb NOx/HP-hr [from AP-42, Section 3.4 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 7 of 40 CFR Part 60, Appendix A.

f. Emission Limitation

16.20 tons NOx per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

g. Emission Limitation

4.13 lbs CO/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 750 horsepower (HP) by an emission factor of 0.0055 lbs CO/HP-hr [from AP-42, Section 3.4 (10/96)].



If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 10 of 40 CFR Part 60, Appendix A.

h. Emission Limitation

3.72 tons CO per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

i. Emission Limitation

0.53 lb OC/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 750 horsepower (HP) by an emission factor of 0.000705 lbs OC/HP-hr [from AP-42, Section 3.4 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 18, 25 or 25A, as applicable, of 40 CFR Part 60, Appendix A.

j. Emission Limitation

0.48 ton OC per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

k. Emission Limitation

6.07 lbs SO₂/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 750 horsepower (HP) by an emission factor of 0.00809 lbs SO₂/HP-hr [from AP-42, Section 3.4 (10/96)].



If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 4 and 6 of 40 CFR Part 60, Appendix A.

I. Emission Limitation

5.46 tons SO₂ per rolling, 12-month period

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

m. Emission Limitation

Visible PE shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown

Applicable Compliance Method

If required, the permittee shall demonstrate compliance by testing in accordance with Method 9 of 40 CFR Part 60, Appendix A.

n. Emission Limitation

0.33 lb PE/hr

Applicable Compliance Method

The hourly emission limitation represents the potential to emit* for the emissions unit. Therefore, no hourly record keeping, reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*Potential to emit for this emissions unit was established by multiplying the rated outlet capacity of 750 horsepower (HP) by an emission limitation of 0.062 lbs PE/mmBtu by a conversion factor of 7000 Btu/HP-hr [from AP-42, Section 3.4 (10/96)].

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval.

o. Emission Limitation

0.062 lb PE per mmBtu of actual heat input

Applicable Compliance Method

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 – 5 of 40 CFR Part 60, Appendix A.

p. Emission Limitation

0.30 ton PE per rolling, 12-month period



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104802

Facility ID: 0303000138

Effective Date: To be entered upon final issuance

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in section d)(3) of the terms and conditions of this permit.

g) Miscellaneous Requirements

- (1) The terms and conditions contained in this permit for this emissions unit shall supersede all the air pollution control requirements for the emissions unit contained in the permit to install #03-4901 issued on 06/27/90.