



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 13-3555

DATE: September 29, 1999

UCAR Carbon Company Factory A
Edwin E Frye
11709 Madison Avenue
Lakewood, OH 44107

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
CLEVELAND DIVISION OF THE ENVIRONMENT



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: September 29, 1999

FINAL PERMIT TO INSTALL 13-3555

Application Number: 13-3555
APS Premise Number: 1318281215
Permit Fee: **\$800**
Name of Facility: UCAR Carbon Company Factory A
Person to Contact: Edwin E Frye
Address: 11709 Madison Avenue
Lakewood, OH 44107

Location of proposed air contaminant source(s) [emissions unit(s)]:
**11709 Madison Avenue
Lakewood, Ohio**

Description of proposed emissions unit(s):
MODIFICATION OF A MATERIAL TREATMENT SYSTEM WHICH CONSISTS OF TREATMENT VESSELS, DRYER, & MATERIAL HANDLING EQUIPMENT.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

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calendar quarters. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

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5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

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8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
- ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

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B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

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5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

7. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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8. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

9. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

10. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

11. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM ₁₀	11.87
S ₀₂	0.70
TOC	0.96
NO _x	32.85
CO	82.13

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Modification of a graphite material treatment system which consists of treatment vessels, gas-fired dryer and material handling equipment. Company identification is West Material Treatment System.	OAC rule 3745-17-07	Twenty percent (20%) opacity as a six minute average, except as provided by rule (less stringent than OAC rule 3745-31-05(A)(3))
	OAC rule 3745-17-11	12.62 pounds/hour PM (less stringent than OAC rule 3745-31-05(A)(3))
	OAC rule 3745-18-06	61.56 pounds/hour SO ₂ (less stringent than OAC rule 3745-31-05(A)(3))
	OAC rule 3745-21-07 (G) (2)	8 pounds/hour organic compounds (OC) and 40 pounds/day OC (less stringent than OAC rule 3745-31-05(A)(3))
	OAC rule 3745-21-08	Equivalent to or less stringent than OAC rule 3745-31-05(A)(3)
	OAC rule 3745-23-06	Equivalent to or less stringent than OAC rule 3745-31-05(A)(3)

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PTL

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Emissions Unit ID: **P027**

UCA

PTL

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Emissions Unit ID: P027

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

II Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

The following test method(s) shall be employed to demonstrate compliance with the following limits:

1. Testing shall be conducted while this emissions unit is venting SO₂, NO_x, CO, OC, and PM emissions to the scrubber. This emissions unit shall be operated at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central Office.

2. Emission Limitation: 12.62 pounds PM/hour

Applicable Compliance Methods:

OAC rule 3745-17-03 (B) (10) using the U.S. EPA Reference Methods 1 to 5 of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

3. Emission Limitation: 20% opacity as a 6-minute average

Applicable Compliance Methods:

OAC rule 3745-17-03 (B) (1) using the U.S. EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

4. Emission Limitation: 61.56 pounds SO₂/hour

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Applicable Compliance Methods:

OAC rule 3745-18-04, using the U.S. EPA Reference Methods 1 through 4, and 6, 6C or 8 of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

5. Emission Limitation: 8 pounds OC/hour

Applicable Compliance Methods:

U.S. EPA Method 25 in 40 CFR Part 60, Appendix A, shall be used to determine the VOC concentrations, if the VOC concentrations as carbon in the outlet are 50 ppm or greater; or U.S. EPA Reference Method 25A or 25B in 40 CFR Part 60, Appendix A, shall be used to determine the VOC concentrations, if the VOC concentrations as carbon in the outlet are less than 50 ppm.

6. Emission Limitation: 40 pounds OC/day

Applicable Compliance Methods:

Actual emission rate will be calculated from the hourly emission rate as taken from stack testing multiplied by the actual operating hours per day.

$$(\text{AEROC}) \times (\text{AOH}) = \text{pounds OC/day}$$

Where

AEROC = actual emission rate, pounds OC per hour

AOH = actual operating hours per day

7. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

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Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Modification of a graphite material treatment system which consists of treatment vessels, gas-fired dryer and material handling equipment. Company identification is West Material Treatment System.	OAC rule 3745-31-05(A)(3)	<p>2.71 pounds/hour PM10 and 11.87 tons/year PM10</p> <p>The visible particulate emissions from any exhaust shall not exceed ten per cent (10%) opacity as a six-minute average, except as provided by OAC rule 3745-17-07</p> <p>0.16 pound/hour SO₂ and 0.70 ton/year SO₂</p> <p>0.22 pound/hour OC (organic compounds) and 0.96 ton/year OC</p> <p>18.75 pounds/hour CO and 82.13 tons/year CO</p> <p>7.50 pounds/hour NO_x and 32.85 tons/year NO_x</p> <p>See I.2.</p>

2. Additional Terms and Conditions

- 2.a The BAT determination for this emissions unit is emission control equipment which consists of a 500 ACFM bin vent dust collector filter (airveyor), a 5,000 ACFM graphite

flake conveyor dust collector filter and a 13,000 ACFM three stage wet scrubber a minimum nitrogen oxide emission control efficiency of 65% by weight and a minimum sulfur dioxide emission control efficiency of 85% by weight.

- 2.b** The three stage wet scrubber will be operated in either it's Normal Operation, or it's Alternate Operation.

For Process Operating Scenarios A or B, i.e. Normal Operation, the following operating configuration of the three stage scrubbing system will be required:

- i. Stage #1 will be operated using a scrubbing solution of sodium hydroxide and sodium hydrosulfide.
- ii. Stage #2 will be operated using a scrubbing solution of sodium hydroxide only.
- iii. Stage #3 will be operated using a scrubbing solution of sodium hydroxide and sodium hydrosulfide.

For Process Operating Scenario C, i.e. Alternate Operation, the following operating configuration of the three stage scrubbing system will be required:

- i. Stage #1 will be operated using a scrubbing solution of sodium hydroxide and sodium hydrosulfide.
- ii. Stage #2 will be operated using a scrubbing solution of sodium hydroxide, and sodium chlorite.
- iii. Stage #3 will be operated using a scrubbing solution of sodium hydroxide and sodium hydrosulfide.

- 2.c** The increase of the PM10 emissions rate is 5.99 tpy. Since the net PM10 emission increase is less than 10 tpy, no air disperion modeling is required.

- 2.d** The increase of the NOx emissions rate is 16.56 tpy. Since the net NOx emission increase is less than 25 tpy, no air disperion modeling is required.

II. Operational Restrictions

1. The pressure drop across the conveyor dust collector filter shall be maintained at a minimum of 1.0 inch of water column while the emissions unit is in operation.

2. During Normal Operation and Alternate Operation, the scrubber Stage #1 scrubbing solution will be a caustic sodium hydroxide and sodium hydrosulfide solution. The pH of the Stage #1 scrubbing solution shall be maintained at 9.0 or greater. The ORP of the Stage #1 scrubbing solution shall be maintained at a negative 600 millivolts or lesser (i.e., can not be greater than minus 600 millivolts).
3. During normal operation, the scrubber Stage #2 scrubbing solution will be a caustic sodium hydroxide solution. The pH of the Stage #2 scrubbing solution shall be maintained at 8.0 or greater.
4. During Alternate Operation, the scrubber Stage #2 scrubbing solution will be a caustic sodium hydroxide and sodium chlorite solution. The pH of the Stage #2 scrubbing solution shall be maintained at 9.0 or less. The ORP of the Stage #2 scrubbing solution shall be maintained at positive 200 millivolts or greater (i.e., can be more positive).
5. During Normal Operation the scrubber Stage #3 scrubbing solution is a caustic sodium hydroxide solution. The pH of the Stage #3 scrubbing solution shall be maintained at 8.0 or greater.
6. During Alternate Operation the scrubber Stage #3 scrubbing solution is a caustic sodium hydroxide and sodium hydrosulfide solution. The pH of the Stage #3 scrubbing solution shall be maintained at 9.0 or greater. The ORP of the Stage #3 scrubbing solution shall be maintained at a negative 600 millivolts or lesser (i.e., can not be greater than minus 600 millivolts).
7. The pH and the ORP control systems shall be calibrated weekly.
8. The total pressure drop across the scrubber system (i.e., all 3 stages) shall be maintained at 1.0 inch of water column or greater as measured by a Magnehelic gauge.
9. The scrubbing solution recirculation flow rate to each of the three stages shall not be less than 50 gallons of scrubbing solution per minute and shall be maintained and monitored by a pressure switch which is located in the discharge line of each recirculation pump in each stage. The actuation of this pressure switch at 50 gallons per minute will be checked semi-annually.
10. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall install, calibrate, operate, and maintain, in good working condition, systems of monitors, in accordance with the manufacturers' recommendations, with any modifications deemed necessary by the permittee. The monitoring devices shall be capable of accurately

measuring the desired parameters. The permittee shall record on an hourly basis the following parameters whenever graphite flake is fed into the material treatment process:

- i. The pH levels of the scrubbing solution in Stages #1, #2, and #3.
- ii. The ORP levels of the scrubbing solution in Stages #1, #2, and #3.
- iii. The total pressure drop readings across the three stages of the scrubber system.
- iv. The scrubbing solution recirculation rate in Stages #1, #2, and #3 via a pressure switch located in the recirculation pump discharge piping of each stage.

The unit for ORP is either negative or positive millivolts. The unit for pressure drop is inches of water column. The unit for scrubbing solution recirculation flow rate is gallons per minute. The monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturers' recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record on an hourly basis the following information for each day for the control equipment when the emissions unit is in operation (when graphite flake is being fed into the material treatment process):
 - i. Total pressure drop across Stage #1 through Stage #3.
 - ii. The pH readings of the scrubbing solution of Stages #1, #2 and #3.
 - iii. The ORP readings of the scrubbing solution of Stages #1, #2 and #3.
 - iv. The scrubbing solution recirculation pressure switch position (i.e., the switch is either "made" or "not made" on Stages #1, #2, and #3. "Made" means the scrubbing solution is flowing).
 - v. The pressure drop readings across the graphite flake conveying system dust collector.
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

These records, as well as any supporting coating analyses and computations, shall be retained in the company's files (on site) for a period of not less than five years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

IV. Reporting Requirements

1. The permittee shall submit semi-annually written reports which identify all deviations (excursions), exceedance(s) and non-compliance periods of time of the following unless specified otherwise below:
 - i. All readings of pressure drop across the graphite flake conveyor dust collector filter less than 1.0 inch of water column.
 - ii. All pH readings of Stage #1 scrubbing solution less than 9.0.
 - iii. All pH readings of Stage #2 scrubbing solution less than 8.0 when in Normal Operation and greater than 9.0 when in Alternate Operation.
 - iv. All pH readings of Stage #3 scrubbing solution less than 8.0 when in Normal Operation and less than 9.0 when in Alternate Operation.
 - v. All ORP readings of Stage #1 scrubbing solution more positive than minus 600 millivolts. All ORP readings of Stage #2 scrubbing solution less than positive 200 millivolts when in Alternate Operation. All ORP readings of Stage #3 scrubbing solution more positive than minus 600 millivolts when in the Alternate Operation.
 - vi. Any time period the recirculation pressure switch was "not made" (i.e., the scrubbing solution was not flowing less than 50 gallons per minute) in Stages #1, #2, or #3, when the emissions unit was in operation.
2. The written semi-annual reports shall be submitted by January 31 and July 31 of each year and shall address the information obtained during the previous six calendar month reporting period (July through December and January through June, respectively) to the Director (the appropriate Ohio EPA District Office or local air agency). If reports or documented material contain confidential information, submit a sanitized version for public record along with the required reports.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

These records, as well as any supporting coating analyses and computations, shall be retained in the company's files (on site) for a period of not less than five years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

V. Testing Requirement and Compliance Method Determinations

The following test method(s) shall be employed to demonstrate compliance with the following limits:

1. Testing shall be conducted while this emissions unit is venting SO₂, NO_x, CO, OC, and PM₁₀ emissions to the scrubber. This emissions unit shall be operated at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central Office.

2. Emission Limitation: 2.71 pounds PM₁₀/hour

Applicable Compliance Methods:

OAC rule 3745-17-03 (B) (10) using the U.S. EPA Reference Methods 1 to 5 of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

3. Emission Limitation: 10% opacity as a 6-minute average

Applicable Compliance Methods:

OAC rule 3745-17-03 (B) (1) using the Method 9 of 40 CFR Part 60, Appendix A.

4. Emission Limitation: 0.16 pound SO₂/hour

Applicable Compliance Methods:

The following test methods shall be employed to determine the control efficiency of the SO₂ emission control equipment (i.e., the per cent of reduction in mass emissions between the inlet and the outlet of the emission control equipment) serving this emissions unit: OAC rule 3745-18-04 (A) using the U.S. EPA Reference Methods 1 to 4 and 6C of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

5. Emission Limitation: 0.22 pound OC/hour

Applicable Compliance Methods:

U.S. EPA Method 25 in 40 CFR Part 60, Appendix A, shall be used to determine the VOC concentrations, if the VOC concentrations as carbon in the outlet are 50 ppm or greater; or U.S. EPA Method 25A or 25B in 40 CFR Part 60, Appendix A, shall be used to determine the

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VOC concentrations, if the VOC concentrations as carbon in the outlet are less than 50 ppm.

6. Emission Limitation: 18.75 pounds CO/hour

Applicable Compliance Methods:

U.S. EPA Reference Methods 1 to 4 and 10 or 10B of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

7. Emission Limitation: 7.50 pounds NOx/hour

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Applicable Compliance Methods:

The following test methods shall be employed to determine the control efficiency of the NO_x emission control equipment (i.e., the per cent of reduction in mass emission rates between the inlet and the outlet of the emission control equipment) serving this emissions unit: U.S. EPA Reference Methods 1 to 4 and 7E of 40 CFR Part 60, Appendix A. If applicable, alternative U.S. EPA test methods may be used with prior approval from the Ohio EPA.

8. Emission Limitation: 11.87 tons PM10/year

Applicable Compliance Methods:

A one time calculation of potential emissions using the lbs/hr determined during the most recent compliant performance test (or the allowable lbs/hr if testing has not yet been conducted) times 8760 hours/year divided by 2000 lbs/ton. Actual emissions can be determined if needed, based upon actual operating hours for the year.

9. Emission Limitation: 0.70 ton SO₂/year

Applicable Compliance Methods:

A one time calculation of potential emissions using the lbs/hr determined during the most recent compliant performance test (or the allowable lbs/hr if testing has not yet been conducted) times 8760 hours/year divided by 2000 lbs/ton. Actual emissions can be determined if needed, based upon actual operating hours for the year.

10. Emission Limitation: 0.96 ton OC/year

Applicable Compliance Methods:

A one time calculation of potential emissions using the lbs/hr determined during the most recent compliant performance test (or the allowable lbs/hr if testing has not yet been conducted) times 8760 hours/year divided by 2000 lbs/ton. Actual emissions can be determined if needed, based upon actual operating hours for the year.

11. Emission Limitation: 82.13 tons CO/year

Applicable Compliance Methods:

A one time calculation of potential emissions using the lbs/hr determined during the most recent

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compliant performance test (or the allowable lbs/hr if testing has not yet been conducted) times 8760 hours/year divided by 2000 lbs/ton. Actual emissions can be determined if needed, based upon actual operating hours for the year.

12. Emission Limitation: 32.85 tons NOx/year

Applicable Compliance Methods:

A one time calculation of potential emissions using the lbs/hr determined during the most recent compliant performance test (or the allowable lbs/hr if testing has not yet been conducted) times 8760 hours/year divided by 2000 lbs/ton. Actual emissions can be determined if needed, based upon actual operating hours for the year.

13. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

VI. Miscellaneous Requirements

None.