



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL MODIFICATION
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 13-02567

DATE: 3/30/2004

Advanced Energy Technology Inc.
Elizabeth Good
11709 Madison Avenue
Lakewood, OH 441070000

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. 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 public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **\$ 200** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

CLAA

PA

CUYAHOGA COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **13-02567** FOR AN AIR CONTAMINANT SOURCE FOR
ADVANCED ENERGY TECHNOLOGY INC.

On 3/30/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Advanced Energy Technology Inc.**, located at **11709 Madison Avenue, Lakewood, Ohio.**

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-02567:

Administrative Modification to modify emission facotrs for P016.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

David Hearne, Cleveland City Health Department, Division of the Environment, 1925 St. Clair Avenue, Cleveland, OH 44114 [(216)664-2324]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT MODIFICATION OF PERMIT TO INSTALL 13-02567

Application Number: 13-02567
APS Premise Number: 1318281215
Permit Fee: **To be entered upon final issuance**
Name of Facility: Advanced Energy Technology Inc.
Person to Contact: Elizabeth Good
Address: 11709 Madison Avenue
Lakewood, OH 441070000

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

Description of proposed emissions unit(s):
Administrative Modification to modify emission factors for P016.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

A. State and Federally Enforceable Permit To Install General Terms and Conditions**1. Monitoring and Related Record keeping 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 record keeping 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 record keeping 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 calendar quarters. See B.9 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, record keeping, 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.

5. Severability Clause

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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.

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:
 - 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

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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 ninety (90) days after commencing operation of the source(s) covered by this permit.

11. 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.

12. 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.

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 Record keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping 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. 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.

5. 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 cannot meet the requirements of this permit 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 cannot meet the requirements of this permit or cannot meet applicable standards.

6. 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.

7. 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).

8. 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.

9. Additional Reporting Requirements When There Are No Deviations of Federally

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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>
CO*	52.56
NO _x *	8.15
SO ₂ *	15.77
PE	4.82

* Allowables for these pollutants were not included in the original PTI.

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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

Advanced
PTI A

Emissions Unit ID: P016

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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>	
P016 - A flexible graphite expansion and rolling line. Company ID is Rolling Line No. 2.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06
MODIFIED		OAC rule 3745-17-11
		OAC rule 3745-17-07
	OAC rule 3745-21-08	
	OAC rule 3745-23-06	

Applicable Emissions
Limitations/Control
Measures

18.00 lbs CO/hr
52.56 CO TPY

2.70 lbs NO_x/hr
8.15 NO_x TPY

5.40 lbs SO₂/hr
15.77 SO₂ TPY

1.10 lbs PE/hr
4.82 PM₁₀ PE TPY

The visible particulate emissions from any exhaust shall not exceed ten per cent (10%) opacity as a six-minute average.

The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation

specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** The BAT determination is a 500 ACFM packed tower scrubber with caustic scrubbing solution to control emissions of particulates PM₁₀, sulfur dioxide and acidic gases.
- 2.b** The CO, NO_x, SO₂ and particulate emission limitations for emissions unit P016 are identified in the Air Emission Summary Section of this Permit to Install (PTI). The limitations for CO, NO_x and SO₂ emissions are based on Synthetic Minor Determination.

II. Operational Restrictions

- 1.** The maximum annual production rate and emission limitations for this emissions unit shall not exceed those specified by the formulas listed below, based upon a rolling 12-month summation.

The permittee shall document the monthly emissions by tracking the monthly graphite flake feed input quantity with the appropriate CO, NO_x and SO₂ emission factors, for the existing production scenarios, and those developed for any new production scenarios, to calculate total monthly actual CO, NO_x and SO₂ emissions from P016. Any new production scenarios shall require the review and prior approval of Ohio EPA or its authorized representative in the area.

<u>Production Scenario</u>	<u>Emission Factor (EF)</u>
#1	34.2 pounds CO/ton of graphite
#2	62 pounds CO/ton of graphite
#1 & #2	5.6 pounds NO _x /ton of graphite
#1 & #2	0.1 pound SO ₂ /ton of graphite
#1 & #2	0.33 pound of PE/ton of graphite

CO Emissions

$$\sum_{i=1}^y S_i = \text{total tons/month CO}$$

$$\sum_{j=1}^{12} E_j \leq 52.56 \text{ tons of CO per rolling 12-month period}$$

Where:

$$S = (\text{pounds CO/ton EF}) \times (\text{tons/month graphite flake fed}) \times (1 \text{ ton}/2000 \text{ pounds})$$

$$y = \text{number of graphite flake feed scenarios}$$

$$E = \text{tons/month CO}$$

NO_x Emissions

$$(15 \text{ pounds NO}_x/\text{ton}) \times (\text{tons/month graphite flake fed}) \times (1 \text{ ton}/2000 \text{ pounds}) = \text{tons/month NO}_x$$

$$\sum_{k=1}^{12} E_k \leq 8.15 \text{ tons of NO}_x \text{ per rolling 12-month period}$$

Where:

$$E = \text{tons/month NO}_x$$

SO₂ Emissions

$$(12.6 \text{ pounds SO}_2/\text{ton}) \times (\text{tons/month graphite flake fed}) \times (1 \text{ ton}/2000 \text{ pounds}) = \text{tons/month SO}_2$$

$$\sum_{m=1}^{12} E_m \leq 15.77 \text{ tons of SO}_2 \text{ per rolling 12-month period}$$

Where:

$$E = \text{tons/month SO}_2$$

Particulate Emissions

$$(0.33 \text{ pound PE/ton}) \times (\text{tons/month graphite flake fed}) \times (1 \text{ ton}/2000 \text{ pounds}) = \text{tons/month PE}$$

$$\sum_{n=1}^{12} E_n \leq 4.82 \text{ tons of PE per rolling 12-month period}$$

Where:

$$E = \text{tons/month PE}$$

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2. Following issuance of this permit, the permittee shall demonstrate compliance with the rolling 12-month production rate and emissions restrictions immediately upon start-up, using the established emissions factors and records of graphite flake feed on file for the previous 12 month operating period.
3. During normal operation, the pH of the caustic scrubbing solution shall be maintained at 7.5 or greater. This pH control system will be calibrated weekly.
4. A scrubbing solution recirculation flow rate to the scrubber of not less 12 gallons scrubbing solution/minute shall be maintained and monitored by a flow switch located in the discharge line of the recirculation pump. The actuation of this flow switch at 12 gallons scrubbing solution/minute will be checked semi-annually.

III. Monitoring and/or Record keeping 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 is fed into the graphite rolling line process:

- a. The pH levels of the caustic scrubbing solution; and
- b. The scrubbing solution recirculation rate in the scrubber via a flow switch located in the recirculation pump discharge piping.

The unit for scrubbing solution recirculation 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 emission control equipment when the emissions unit is in operation (when graphite flake is being fed into the rolling line process):
 - a. pH readings of the caustic scrubbing solution; and,
 - b. The scrubbing solution recirculation flow switch position (i.e., the switch is either "made" or "not made." "Made" means the scrubbing solution is flowing).
3. The permittee shall maintain most the records of the graphite flake feed rate and all other information needed under term 1. of II. Operational Restrictions, to determine compliance on a

rolling 12-month basis.

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:
 - a. The rolling 12-month limitations on the carbon monoxide, oxides of nitrogen and sulfur dioxide emissions.
 - b. All pH readings of the caustic scrubbing solution less than 7.5.
 - c. Any time period the scrubbing solution recirculation flow switch was "not made" (i.e., scrubbing solution was not flowing) when the emissions unit was in operation.

The written semi-annual reports shall be submitted by January 31 and July 31 of each year and shall address the data obtained during the previous calendar semi-annual reporting period (July through December and January through June, respectively) to the Director (Cleveland Air Pollution Control). If reports or documented material(s) contain confidential information, submit a sanitized version for public record along with the required reports.

V. Testing Requirements

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

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

<u>Production Scenario</u>	<u>Emission Factor (EF)</u>
#1	34.2 pounds CO/ton of graphite
#2	62 pounds CO/ton of graphite
#1 & #2	5.6 pounds NO _x /ton of graphite
#1 & #2	0.1 pound SO ₂ /ton of graphite
#1 & #2	0.33 pound of PE/ton of graphite

Testing shall be conducted while this emissions unit is venting SO₂, NO_x, CO and

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particulate 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.

b. Emission Limitation:

18.0 pounds CO/hour

Applicable Compliance Methods:

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.

c. Emission Limitation:

2.79 pounds NO_x/hour

Applicable Compliance Methods:

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.

d. Emission Limitation:

5.40 pounds 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 percent 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 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.

e. Emission Limitation:

1.10 pounds particulate/hour

Applicable Compliance Methods:

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OAC rule 3745-17-03 (B) (10) using the 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.

f. Emission Limitation:

52.56 tons CO/year

Applicable Compliance Methods:

Calculation of the monthly and rolling 12-month emissions using records of restricted amount of material processed and emission factors using the equations as follows:

CO Emissions:

$$\sum_{i=1}^y S_i = \text{total tons/month CO}$$

$$\sum_{j=1}^{12} E_j \leq 52.56 \text{ tons of CO per rolling 12-month period}$$

Where:

S = (pounds CO/ton EF) x (tons/month graphite flake fed) x (1 ton/2000 pounds)

y = number of graphite flake feed scenarios

E = tons/month CO

g. Emission Limitation:

8.15 tons NO_x / year

Applicable Compliance Methods:

Calculation of the monthly and rolling 12-month emissions using records of restricted amount of material processed and emission factors using the equations as follows:

NO_x Emissions:

(15.0 pounds NO_x/ton graphite) x (ton/month graphite flake fed) x (1 ton/2000 pounds)=tons/month, NO_x

$$\sum_{k=1}^{12} E_k \leq 8.15 \text{ tons NO}_x \text{ emissions per rolling 12-month period}$$

Where:

E = tons/month, NO_x

h. Emission Limitation:

15.77 SO₂ tons/year

Applicable Compliance Method:

Calculation of the monthly and rolling 12-month emissions using records of restricted amount of material processed and emission factors using the equations as follows:

SO₂ Emissions:

(12.6 pounds SO₂/ton graphite) x (ton/month graphite flake fed) x (1 ton/2000 pounds)=
tons/month, SO₂

$$\sum_{m=1}^{12} E_m \leq 15.77 \text{ tons SO}_2 \text{ emissions per rolling 12-month period}$$

Where:

E = tons/month, SO₂

i. Emission Limitation:

4.82 PE tons/year

Applicable Compliance Method:

Calculation of the monthly and rolling 12-month emissions using records of restricted amount of material processed and emission factors using the equations as follows:

Particulate Emissions

(0.33 pound PE/ton) x (tons/month graphite flake fed) x (1 ton/2000 pounds)=
tons/month PE

$$\sum E_n \leq 4.82 \text{ tons of PE per rolling 12-month period}$$

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Issued: To be entered upon final issuance

n=1

Where:

E=tons/month PE

Emissions Unit ID: **P016**

VI. Miscellaneous Requirements

None

Issued: To be entered upon final issuance

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>
P016		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None