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Facility Name: **Nova Graphite Inc.**

Application Number: **03-3155**

Date: **March 3, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(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 source(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 Ohio Administrative Code (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

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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 applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Nova Graphite Inc.** located in **Ashland** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>
P005	Electric Induction bake furnace (70") #1	Compliance with the terms and conditions of this permit.
P006 cont'd		
P007	Electric Induction bake furnace (50") #3	
P006	Electric Induction bake furnace (70")	Compliance with

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u> and Conditions)
the terms and conditions of this permit.		3745-17-07 (A)	Permit Allowable Mass Emissions and/or Control/Usage Requirements	20% opacity except as provided by rule
	Applicable Federal & OAC Rules	3745-17-11	*	*
	3745-31-05	3745-31-05	5.27 lbs SO ₂ /hr 4.00 Tons SO ₂ /yr	2.64 lbs SO ₂ /yr 1.98 Tons SO ₂ /yr
			0.54 lbs PE/hr 0.40 Tons PE/yr	0.26 lbs PE/hr 0.19 Tons PE/yr
			1.55 lbs CO/hr 1.16 Tons CO/yr	0.77 lbs CO/hr 0.57 Tons CO/yr
			(See Additional Special Terms and Conditions)	(See Additional Special Terms and Conditions)
	3745-17-07 (A)	3745-17-07 (A)	20% opacity except as provided by rule	20% opacity except as provided by rule
Compliance with the terms and conditions of this permit.	3745-17-11	3745-17-11	*	*
	3745-31-05		5.27 lbs SO ₂ /yr 4.00 Tons SO ₂ /yr	
			0.54 lbs PE/hr 0.40 Tons PE/yr	
			1.55 lbs CO/hr 1.16 Tons CO/yr	
			(See Additional Special Terms	

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- * The emission limitation restriction established by this rule is less stringent than the limit established by OAC rule 3745-31-05.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
SO ₂	9.98
PM	0.99
CO	2.89

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA Northwest District Office, 347 North Dumbridge Road, Bowling Green, Ohio 43402.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers

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in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA Northwest District Office, 347 North Dumbridge Road, Bowling Green, Ohio 43402.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

INTRODUCTION

Nova Graphite, Inc. is proposing to install 3 Electric Induction bake furnaces. The process involves the graphitizing baked carbon shapes. They add sulfur to the process where by the end of the bake time the sulfur has been oxidized to SO₂. Particulate and CO emissions were calculated by using stack test data from a similar source. The company wishes emissions units P005, P006, and P007 to each be limited to 1,500 hrs/yr in order to avoid PSD modeling. The company is not a PSD facility, but the potential SO₂ emissions from these furnaces are over the 40 TPY unless the hours of operation are restricted.

A. EMISSION LIMITATIONS

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1. No additional emissions limitations and/or control requirements. (See Air Summary for applicable emissions limitations and/or control requirements.)

B. OPERATIONAL RESTRICTIONS

1. **P005**

- a. the maximum annual operating hours for this emissions unit shall not exceed 1,500 hours per rolling 12 month period.

2. **P006**

- a. the maximum annual operating hours for this emissions unit shall not exceed 1,500 hours per rolling 12 month period.

3. **P007**

- a. the maximum annual operating hours for this emissions unit shall not exceed 1,500 hours per rolling 12 month period.

C. MONITORING/RECORDKEEPING REQUIREMENTS

1. The permittee shall maintain monthly records of the operating hours for emissions units P005, P006, and P007.
2. The permittee shall maintain monthly records of sulfur used in emissions units P005, P006, and P007.

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, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of

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all reports required by the permit. Such records may be maintained in computerized form.

D. REPORTING REQUIREMENTS

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12 month operating hours limitation.
2. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, annual written reports of (a) any deviations (excursions) from 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 Ohio EPA, Northwest District Office, Division of Air Pollution Control. If no deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviations occurred during that year. The reports shall be submitted annually, i.e. by January 31 of each year and shall cover the previous calendar year. (These annual reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

E. Testing requirements

1. Compliance with the emission limitation(s) found in the "Air emission Summary" of this permit shall be determined in accordance with the following method(s):

P005, P006

- a. Emission Limitations for P005, P006:
5.27 lbs SO₂/hr, 4.00 TPY

Applicable Compliance Method lbs/hr, :
Compliance with the emissions limit of 5.27 lbs SO₂/hr shall be determined by using the following formula:

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lbs/hr Sulfur used x 2 (molecular weight of sulfur dioxide/molecular weight of sulfur) = lbs SO₂/hr. If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 6, of 40 CFR Part 60, Appendix A".

Applicable Compliance Method TPY:

Compliance with the emission limit of 4.00 tons SO₂/yr shall be determined by using the following formula:

TPY of SO₂ = tons/yr Sulfur used x 2 (molecular weight of sulfur dioxide/molecular weight of sulfur).

P007

- b. Emission Limitations P007:
2.64 lbs SO₂/hr, 1.98 TPY

Applicable Compliance Method lbs/hr:

Compliance with the emission limit of 2.64 lbs SO₂/hr shall be determined by using the following formula:

lbs/hr Sulfur used x 2 (molecular weight of sulfur dioxide/molecular weight of sulfur) = lbs/hr SO₂. If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 6, of 40 CFR Part 60, Appendix A".

Applicable Compliance Method TPY:

Compliance with the emission limit of 1.98 tons SO₂/yr shall be determined by using the following company supplied formula:

TPY SO₂ = Tons/yr sulfur x 2 (molecular weight of sulfur dioxide/molecular weight of sulfur).

P005, P006

- c. Emission Limitation P005, P006:
0.54 lbs PE/hr, 0.40 TPY

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Applicable Compliance Method lbs/hr:

Compliance with the emissions limit of 0.54 lbs PE/hr shall be determined by using the following company supplied formula:

Multiplying the maximum hourly production rate of 0.133 tons by an emission factor of 4.06 lbs/ton of materials used. (This emission factor was supplied by the company and was established from the stack test results of a similar unit at a sister plant.) If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 5, of 40 CFR Part 60, Appendix A."

Applicable Compliance Method TPY:

Compliance with the annual emissions limit of 0.40 tons/yr shall be determined by using the following formula:

Compliance shall be assumed as long as the emissions unit is in compliance with its lb/hr limit and has not exceeded the hourly operation restriction of 1,500 hours per rolling 12 month period.

P007

- d. Emission Limitation P007:
0.26 lbs PE/hr, 0.19 TPY

Applicable Compliance Method lbs/hr:

Compliance with the emission limit of 0.26 lbs PE/hr shall be determined by the following company supplied formula:

multiplying the maximum hourly production rate of 0.066 tons by an emission factor of 4.06 lbs/ton of material used. (This emission factor was supplied by

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the company and was established from the stack test results of a similar unit at a sister plant.) If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 5, of 40 CFR Part 60, Appendix A."

Applicable Compliance Method TPY:

Compliance with 0.19 tons/yr shall be assumed as long as the emissions unit is in compliance with its lb/hr limit and has not exceeded the hourly operation restriction of 1,500 hours per rolling 12 month period.

P005, P006

- e. Emission Limitation P005, P006:
1.55 lbs CO/hr, 1.16 TPY

Applicable Compliance Method lbs/hr:

Compliance with the emissions limit of 1.55 lbs CO/hr shall be determined by using the following formula:

Multiplying the maximum hourly production rate of 0.133 tons by an emission factor of 11.71 lbs/ton of material used. (This emission factor was supplied by the company and was established from the stack test results of a similar unit at a sister plant.) If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 10, of 40 CFR Part 60, Appendix A."

Applicable Compliance Method TPY:

Compliance with the annual emissions limit of 1.16 tons/yr shall be determined by using the following formula:

Compliance shall be assumed as long as the emissions unit is in compliance with its lb/hr limit and has not exceeded the hourly operation restriction of 1,500 hours per rolling 12 month period.

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P007

- f. Emission Limitation:
0.77 lbs CO/hr, 0.57 TPY.

Applicable Compliance Method lbs/hr:

Compliance with the emissions limit of 0.77 lbs CO/hr shall be determined by using the following formula:

Multiplying the maximum hourly production rate of 0.066 tons by an emissions factor of 11.71 lbs/ton of material used. (This emissions factor was supplied by the company and was established from the stack test results of a similar unit at a sister plant.) If required, the permittee shall demonstrate compliance with the above emissions limits pursuant to "USEPA Reference Method 10, of 40 CFR Part 60, Appendix A".

Applicable Compliance Method TPY:

Compliance with the annual emissions limit of 0.57 tons/yr shall be determined by using the following formula:

Compliance shall be assumed as long as the emissions unit is in compliance with its lb/hr limit and has not exceeded the hourly operation restriction of 1,500 hours per rolling 12 month period.

F. Miscellaneous Requirements:

NONE.