



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov. Center

Application No: 01-08137

DATE: 5/15/2001

Oglebay Norton Industrial Sands, INC
Steven Bell
26900 Coshocton Rd
Millwood, OH 43028

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

CDO



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 01-08137

Application Number: 01-08137
APS Premise Number: 0142000010
Permit Fee: **\$900**
Name of Facility: Oglebay Norton Industrial Sands, INC
Person to Contact: Steven Bell
Address: 26900 Coshocton Rd
Millwood, OH 43028

Location of proposed air contaminant source(s) [emissions unit(s)]:
26900 Coshocton Rd
Howard, Ohio

Description of proposed emissions unit(s):
Two sand dryers.

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

calendar quarters. See B.10 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.

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.

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 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.

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.

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.

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 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.

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.

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. 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.

10. 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>
CO	18.87
NOx	22.46
VOC	1.24
SO ₂	0.13
PM	69.0

Oglebay Norton Industrial Sands, INC

PTI Application: **01-08137**

Issued: 5/15/2001

Facility ID: **0142000010**

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PTI A₁

Issued: 5/15/2001

Emissions Unit ID: P005

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.

Operations, Property,
and/or Equipment

Applicable Rules/Requirements

P005 - Barber Green rotary
sand dryer controlled by a
DUCON 72 scrubber

OAC rule 3745-31-05 (A)(3)

OAC rule 3745-17-11 (B)(2)

OAC rule 3745-18-06 (C)

OAC rule 3745-17-07(A)(1)

Applicable Emissions
Limitations/Control
Measures

Carbon monoxide emissions shall not exceed 2.08 pounds per hour and 9.09 tons a year.

Sulfur dioxide emissions shall not exceed 0.01 pound per hour and 0.06 ton a year.

Nitrogen oxides emissions shall not exceed 2.47 pounds per hour and 10.82 tons a year

Volatile organic compounds emissions shall not exceed 0.14 pound per hour and 0.60 ton a year.

Particulate matter emissions of shall not exceed 7.0 pounds per hour and 30.5 tons a year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(2).

Visible emissions of particulate from the stack shall not exceed 20% opacity, except as provided by rule.

The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 374-31-05 (A)(3)

The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 374-31-05 (A)(3).

2. Additional Terms and Conditions

- 2.a** The scrubber controlling particulate emissions from emissions unit P005 shall operate with a minimum control efficiency of 98%.

II. Operational Restrictions

1. The scrubber water flow rate shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
2. The permittee shall properly install, operate and maintain equipment to monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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Oglebay Norton Industrial Sands, INC

PTI Application: **01 00127**

Issued

Facility ID: **0142000010**

Emissions Unit ID: P005

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required level.

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation: Particulate emissions shall not exceed 7.0 pounds per hour .

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

Emission Limitation: The scrubber controlling particulate emissions from emissions unit P005 shall operate with a minimum control efficiency of 98%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5. Note: such a particulate emissions test shall be conducted at the inlet as well as the outlet of the control device for purposes of determining the efficiency of the control device.

Emission Limitation: Sulfur dioxide emissions shall not exceed 0.01 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide shall be determined by multiplying an emission factor of 0.6 lb of sulfur dioxide per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4,

Table 1.4-2(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 6C.

Emission Limitation: Nitrogen oxides emissions shall not exceed 2.47 pounds per hour .

Applicable Compliance Method: Compliance with the allowable mass emission rate for NO_x shall be determined by multiplying an emission factor of 100 pounds of NO_x per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1(7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

Emission Limitation: Volatile organic compounds emissions shall not exceed 0.14 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for VOC shall be determined by multiplying an emission factor of 5.5 pounds of VOC per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 18, 25 or 25A.

Emission Limitation: Carbon monoxide emissions shall not exceed 2.08 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO shall be determined by multiplying an emission factor of 84 pounds of CO per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 10.

Emission Limitation: Nitrogen oxides emissions shall not exceed 10.82 tons per year; Sulfur dioxide emissions shall not exceed 0.06 ton per year; Carbon dioxide emissions shall not exceed 9.09 tons per year; Volatile organic compounds shall not exceed 0.60 ton per year; and Particulate emissions shall not exceed 30.5 tons per year.

Oglebay Norton Industrial Sands, INC

PTI Application: 01 00127

Issued

Facility ID: 0142000010

Emissions Unit ID: P005

Applicable Compliance Method: Compliance with the annual allowable mass emission limitations shall be determined by multiplying the maximum allowable hourly emission limitation by 8,760 and dividing by 2000.

Emission Limitation -

Visible particulate emissions shall not exceed 20% opacity.

Applicable Compliance Method -

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

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Issued: 5/15/2001

Emissions Unit ID: P005

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>
P005 - Barber Green rotary sand dryer controlled by a DUCON 72 scrubber		

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

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Issued: 5/15/2001

Emissions Unit ID: P005

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>	
P006 - Aztec rotary sand dryer controlled by a DUCON 72 scrubber	OAC rule 3745-31-05 (A)(3)	OAC rule 3745-17-11 (B)(2)
		OAC rule 3745-18-06 (C)
	OAC rule 3745-17-07(A)(1)	

Issued

Emissions Unit ID: P006

Applicable Emissions
Limitations/Control
Measures

Carbon monoxide emissions shall not exceed 2.23 pounds per hour and 9.78 tons a year.

Sulfur dioxide emissions shall not exceed 0.02 pound per hour and 0.07 ton a year.

Nitrogen oxides emissions shall not exceed 2.66 pounds per hour and 11.64 tons a year

Volatile organic compounds emissions shall not exceed 0.15 pound per hour and 0.64 ton a year.

Particulate matter emissions of shall not exceed 8.8 pounds per hour and 38.5 tons a year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(2) .

Visible emissions of particulate from the stack shall not exceed 20% opacity, except as provided by rule.

The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule

374-31-05 (A)(3).

The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 374-31-05 (A)(3).

2. Additional Terms and Conditions

- 2.a** The scrubber controlling particulate emissions from emissions unit P006 shall operate with a minimum control efficiency of 90%.

II. Operational Restrictions

1. The scrubber water flow rate shall be continuously maintained at a value of not less than 25 gallons per minute at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
2. The permittee shall properly install, operate and maintain equipment to monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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Issued: 5/15/2001

Emissions Unit ID: P006

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required level.

V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation: Particulate emissions shall not exceed 8.8 pounds per hour .

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

Emission Limitation: The scrubber controlling particulate emissions from emissions unit P006 shall operate with a minimum control efficiency of 90%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5. Note: such a particulate emissions test shall be conducted at the inlet as well as the outlet of the control device for purposes of determining the efficiency of the control device.

Emission Limitation: Sulfur dioxide emissions shall not exceed 0.02 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide shall be determined by multiplying an emission factor of 0.6 lb of sulfur dioxide per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2(7/98). If required, the permittee shall demonstrate compliance with this emission

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Emissions Unit ID: P006

limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 6C.

Emission Limitation: Nitrogen oxides emissions shall not exceed 2.66 pounds per hour .

Applicable Compliance Method: Compliance with the allowable mass emission rate for NO_x shall be determined by multiplying an emission factor of 100 pounds of NO_x per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1(7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

Emission Limitation: Volatile organic compounds emissions shall not exceed 0.15 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for VOC shall be determined by multiplying an emission factor of 5.5 pounds of VOC per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 18, 25 or 25A.

Emission Limitation: Carbon monoxide emissions shall not exceed 2.23 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO shall be determined by multiplying an emission factor of 84 pounds of CO per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 10.

Emission Limitation: Nitrogen oxides emissions shall not exceed 11.64 tons per year; Sulfur dioxide emissions shall not exceed 0.07 ton per year; Carbon dioxide emissions shall not exceed 9.78 tons per year; Volatile organic compounds shall not exceed 0.64 ton per year; and Particulate emissions shall not exceed 38.5 tons per year.

Applicable Compliance Method: Compliance with the annual allowable mass emission limitations shall be determined by multiplying the maximum allowable hourly emission limitation by 8,760 and dividing by 2000.

Emission Limitation -

Visible particulate emissions shall not exceed 20% opacity.

Oglebay Norton Industrial Sands, INC

PTI Application: **01 00127**

Issued

Facility ID: **0142000010**

Emissions Unit ID: P006

Applicable Compliance Method -

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

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>
P006 - Aztec rotary sand dryer controlled by a DUCON 72 scrubber		

2. Additional Terms and Conditions

2.a none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

none

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

NEW SOURCE REVIEW FORM B

PTI Number: 01-08137

Facility ID: 0142000010

FACILITY NAME Oglebay Norton Industrial Sands, INC- Millwood Plant

FACILITY DESCRIPTION Sand Plant CITY/TWP Howard

SIC CODE 1446 SCC CODE 3-05-006-06 EMISSIONS UNIT ID P005

EMISSIONS UNIT DESCRIPTION Barber Green rotary sand dryer controlled by a DUCON 72 scrubber

DATE INSTALLED 1980

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	7	30.5	7	30.5
PM ₁₀					
Sulfur Dioxide	attainment	0.01	0.06	0.01	0.06
Organic Compounds	attainment	0.14	0.6	0.14	0.6
Nitrogen Oxides	attainment	2.47	10.82	2.47	10.82
Carbon Monoxide	attainment	2.08	9.09	2.08	9.09
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**Enter Determination** Compliance with the permitted emission limits and applicable rules; Use of a scrubber with a minimum control efficiency of 98%.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ unknown

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

33 NEW SOURCE REVIEW FORM B

PTI Number: 01-08137

Facility ID: 0142000010

FACILITY NAME Oglebay Norton Industrial Sands, INC- Millwood Plant

FACILITY DESCRIPTION Sand Plant.

CITY/TWP Howard

Emissions Unit ID: P006

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion**A. Source Description**

Millwood Sand and Gravel has submitted a PTI application for two sand dryers. These emission units were installed in 1980(Barber Green) and 1984(Aztec). This facility is not a major facility for PSD applicability purposes and is located in Knox County, which is attainment for all criteria pollutants. Millwood Sand and Gravel is a Title V facility.

B. Facility Emissions and Attainment Status

The proposed emissions units are subject to OAC rule 3745-31-05 and as a result the allowable emission rates are based upon BAT. BAT for these emission units include the use of a scrubber with a minimum control efficiency of 90% for the Aztec dryer and 98% for the Barber Green dryer . OAC rules 3745-17-11 and 3745-18-06 apply, however BAT establishes more stringent limits than these rules. OAC rule 3745-17-07 also applies and as a result the permit lists this rule and the corresponding opacity limit. The permit contains parametric monitoring, recordkeeping and reporting to ensure compliance with the permitted emission limits. The proposed emission limits are less than 250 tons per year. Therefore , PSD does not apply.

C. Source Emissions

The potential emissions from the emission units are below those levels which would trigger PSD requirements. Compliance with the proposed PM emission limits has already been verified through emissions testing conducted in June of 2000 . Limits for the remaining pollutants are based upon emission factors from section 1.4 of AP-42. See the attached calculations for a further explanation of how the proposed emission limits were derived. These sources were installed prior to the applicability of our modeling guidance for PM-10. Please call me if you have any questions(728-3813).

D. Conclusion

P005 has a PWR of 90,000 pounds per hour and P006 has a process weight of 120,000 pounds per hour. This facility operates in SIC code 1446. Therefore, the fee for P005 is \$400 and the fee for P006 is \$500.

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or Netting Determination
Permit To Install ENTER PTI NUMBER HERE

A. Source Description**B. Facility Emissions and Attainment Status****C. Source Emissions**

34 NEW SOURCE REVIEW FORM B

PTI Number: 01-08137

Facility ID: 0142000010

FACILITY NAME Oglebay Norton Industrial Sands, INC- Millwood Plant

FACILITY DESCRIPTION Sand Plant.

CITY/TWP Howard

Emissions Unit ID: P006

D. Conclusion

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

Pollutant

Tons Per Year

CO

18.87

NOx

22.46

VOC

1.24

SO2

0.13

PM

69.0

35 NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Sand Plant.

CITY/TWP

Emissions Unit ID: P006

Howard
