



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
ALLEN COUNTY**

CERTIFIED MAIL

Street Address:

Mailing Address:

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

Lazarus Gov.
Center

Application No: 03-17439

Fac ID: 0302020370

DATE: 6/12/2008

PCS Nitrogen Ohio, L.P.
Mike Resar
PO Box 1901 1900 Fort Amanda Road
Lima, OH 45802

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit 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 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, 43216-1049.

A Permit to Install 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 a fee of **\$1250** 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.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

NWDO

LIMA-ALLEN REG PLANNING COMM

IN

ALLEN COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 03-17439 FOR AN AIR CONTAMINANT SOURCE
FOR PCS Nitrogen Ohio, L.P.**

On 6/12/2008 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **PCS Nitrogen Ohio, L.P.**, located at **1900 Fort Amanda Road, Lima, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-17439:

Modification of Nitric Acid Unit

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.

Don Waltermeyer, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 [(419)352-8461]



**Permit To Install
Terms and Conditions**

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

DRAFT PERMIT TO INSTALL 03-17439

Application Number: 03-17439
Facility ID: 0302020370
Permit Fee: **To be entered upon final issuance**
Name of Facility: PCS Nitrogen Ohio, L.P.
Person to Contact: Mike Resar
Address: PO Box 1901 1900 Fort Amanda Road
Lima, OH 45802

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1900 Fort Amanda Road
Lima, Ohio**

Description of proposed emissions unit(s):
Modification of Nitric Acid Unit.

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

Chris Korleski
Director

PCS Nitrogen Ohio, L.P.
PTI Application: 03-17439
Issued: To be entered upon final issuance
Part I - GENERAL TERMS AND CONDITIONS

Facility ID: 0302020370

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

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reports shall be submitted (i.e., postmarked) quarterly, 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.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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

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permittee shall comply with the requirement to register such a plan.

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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 re-issuance, or modification
- 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, 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 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

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permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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 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 and the State and by citizens (to the extent allowed by section 304 of the Act) 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.

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- 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 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

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cause a public nuisance, in violation of OAC rule 3745-15-07.

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13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

1. Compliance Requirements

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

2. Reporting 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 (i.e., postmarked) quarterly, 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

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of any transfer of this permit.

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4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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

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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

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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 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., postmarked), 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>
NOx	63.49

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P570) - 450 Tons/Day Nitric Acid (100%) Plant #2 (modification of PTI #03-05319 issued on 7/17/91 and modified 11/25/05 to allow for increased production).

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>9.70 lbs of nitrogen oxides (NO_x)/hour; 42.49 tons of NO_x/year except during periods of startup and shutdown</p> <p>0.52 lb of NO_x/ton of acid (100%) produced except during periods of startup and shutdown (See A.I.2.a.i)</p> <p>21.00 tons of NO_x per rolling 12-month period from startup and shutdown</p> <p>See A.I.2.a and See A.I.2.b</p>
40 CFR Part 60 Subpart G	See A.I.2.b.ii and A.I.2.d

2. Additional Terms and Conditions

- 2.a Best Available Technology (BAT) control requirements for this emissions unit has been determined to be use of a selective catalytic reduction (SCR) system that achieves an emission rate of 0.52 lb of NO_x/ton of acid (100%) produced except during periods of startup and shutdown
- 2.b The permittee shall not discharge into the atmosphere, except during startup and shutdown, any gases which:
 - i. contain nitrogen oxides, expressed as NO₂, in excess of 0.52 lb per ton of acid produced, the production being expressed as 100% nitric acid; and
 - ii. exhibit 10% opacity or greater.
- 2.c The requirements of this rule also include compliance with the opacity

Emissions Unit ID: P570

requirements of 40 CFR Part 60 Subpart G.

- 2.d** The lbs NO_x per ton of acid produced limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.e** The permittee shall submit a plan for quantifying NO_x emissions during times of startup and shutdown as indicated in A.III.4. The plan shall be submitted for review to the Ohio EPA Northwest District Office within 60 days of final issuance of this permit, and shall be implemented immediately upon approval.

II. Operational Restrictions

1. The permittee shall be limited to a maximum of 28 startups and 28 shutdowns per rolling 12-month period.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous monitoring system for measuring NO_x. The pollutant gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 6013(d) of this part shall be nitrogen dioxide (NO₂). The span value shall be 500 ppm of NO₂. Method 7 shall be used for the performance evaluations under 40 CFR 60.13(c). Acceptable alternative methods to Method 7 are given in 40 CFR 60.74(c). [40 CFR 60.73(a)]
2. The permittee shall establish a conversion factor for the purpose of converting monitoring data into units of acceptable standard (kg/metric ton, lb/ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm). The conversion factor shall be re-established during any performance test under 40 CFR 60.8 or any continuous monitoring system performance evaluation under 40 CFR 60.13(c). [40 CFR 60.73(b)]
3. The permittee shall record the daily production rate and the hours of operation. [40 CFR 60.73(c)]
4. The permittee shall record the following information on a monthly basis for startup and shutdowns:
 - a. the number of startups and shutdowns*;
 - b. the NO_x emissions**, in tons;

Emissions Unit ID: P570

- c. the number of startups and shutdowns per rolling, 12-month period; and
- d. the NO_x emissions, in tons, per rolling 12-month period.

* A startup consists of all periods of time when the reactor gauze temperature is below a minimum operating temperature of 1700 degrees Fahrenheit while bringing the unit online. A shutdown consists of all periods of time when the reactor gauze temperature is below a minimum operating temperature of 1200 degrees Fahrenheit while bringing the unit offline.

** The permittee shall use monitoring data for determining NO_x emissions during startup and shutdown periods. For any period of time during which startup and shutdown emissions exceed the capability of the NO_x monitoring system (i.e. the NO_x concentration exceeds the span range, etc.), emissions shall be quantified for that specific period of time using quantification methods approved by the Ohio EPA (See A.1.2.e).

- 5. 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 emissions;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

- 1. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as any 3-hour period during which the average nitrogen oxide emissions (arithmetic average of three contiguous 1-hour periods), as measured by a continuous monitoring system, exceed the standard under 40 CFR 60.72(a). [40 CFR 60.73(e)]
- 2. The permittee shall submit semiannual written reports that (a) identify all days during

Emissions Unit ID: P570

which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the rolling 12-month limitation on startup and shutdown events;
 - b. all exceedances of the rolling 12-month limitation for NO_x emission from startup and shutdowns.

These reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation
 9.70 lbs of nitrogen oxides (NO_x)/hour;
 42.49 tons of NO_x/year except during periods of startup and shutdown

Applicable Compliance Method

Compliance with the hourly NO_x emission limitation shall be based on the results of emission testing conducted in accordance with Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance is also shown with the annual limitation.

- b. Emission Limitation
 0.52 lb of NO_x/ton of acid produced except during periods of startup and shutdown

Applicable Compliance Method

Compliance with the NO_x emission limitation shall be based on the results of emission testing conducted in accordance with Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.

- c. Emission Limitation

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21.00 tons of NO_x per rolling 12-month period from startup and shutdown

Applicable Compliance Method

Compliance with the NO_x emission limitation shall be based on the record keeping specified in A.III.4.

d. Emission Limitation

The permittee shall not discharge into the atmosphere, except during startup and shutdown, any gases which exhibit 10% opacity or greater.

Applicable Compliance Method

Compliance with the opacity limitation shall be based on the results of emission testing conducted in accordance with Method 9 of 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 60 days of achieving maximum production but no later than 180 days after initial startup.
 - b. The emission testing shall be conducted to demonstrate compliance with the following limitations:
 - i. 14.50 lbs NO_x/hour
 - ii. 0.52 lb NO_x/ton acid produced
 - iii. 10% opacity
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable emission rates:
 - i. for NO_x, Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.
 - ii. for opacity, Method 9 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

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- d. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.
- e. The permittee shall determine compliance with the lbs NO_x per ton of acid produced as follows:
 - i. The emission rate (E) of NO_x shall be computed for each run using the following equation:
$$E = (C_s \times Q_{sd})/P$$
where
E = emission rate of NO_x as NO₂, lb/ton of 100% nitric acid
C_s = concentration of NO_x as NO₂, lb/dscf
Q_{sd} = volumetric flow rate of effluent gas, dscf/hr
P = acid production rate, ton/hr for 100% nitric acid
 - ii. Method 7 shall be used to determine the NO_x concentration of each grab sample. Method 1 shall be used to select sampling site, and the sampling point shall be the centroid of the stack of duct or at a point no closer to the walls than 1 m (3.28 ft). Four grab samples shall be taken at approximately 15-minute intervals. The arithmetic mean of the four sample concentrations shall constitute the run value (C_s).
 - iii. Method 2 shall be used to determine the volumetric flow rate (Q_{sd} of the effluent gas). The measurement site shall be the same as for the NO_x samples taken.
 - iv. The methods of 40 CFR 60.73(c) shall be used to determine the production rate (P) of 100% nitric acid for each run. Material balance over the production system shall be used to confirm the production rate.
- f. The permittee may use the following as alternatives to the reference methods and procedures specified in this section:
 - i. For Method 7, Method 7A, 7B, 7C, 7D, or 7E may be used. If Method 7C

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is used, the sampling time shall be at least 1 hour.

- ii. The permittee shall use the procedures in 40 CFR 60.73(b) to determine the conversion factor for converting the monitoring data to the units of the standard.

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

Personnel from the Ohio EPA, Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northwest District Office.

3. The permittee shall conduct, or have conducted, an annual performance evaluation of this emissions unit. Such an evaluation shall include, but not be limited to, the following information:
 - a. actual production records;
 - b. control equipment efficiency and reliability, including all downtime;
 - c. actual emissions based on continuous emission monitoring data; and
 - d. methods investigated and/or implemented to improve control efficiency and/or reduce emissions.

This report shall be submitted by February 1 of each year and shall cover data obtained during the previous operating year.

VI. Miscellaneous Requirements

1. This emissions unit is subject to the applicable provisions of Subpart G of the New

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Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

It should be noted that the permittee fulfilled the reporting requirements pursuant to 40 CFR Part 60.7 during the permitting process that resulted in the issuance of PTI #03-05319 on 7/17/91.

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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.

Operations, Property, and/or Equipment - (P570) - 450 Tons/Day Nitric Acid (100%) Plant #2 (modification of PTI #03-05319 issued on 7/17/91 and modified 11/25/05 to allow for increased production).

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC 3704.03(F)	See B.III.1 - B.III.3 and B.IV.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The Permit to Install for this emissions unit was evaluated based on the actual materials and design parameters of the emissions unit's exhaust system, as specified in the permit application. The "Toxic Air Contaminant Statute," ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application. Modeling was performed for each toxic air contaminant emitted at over one ton per year using the SCREEN 3.0 air dispersion model. The predicted 1-hour maximum ground-level concentration results from the approved air dispersion model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Toxic Air Emissions, Option A," as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour work day and 40-hour work week, for each toxic compound emitted from the emissions unit, has been documented from one of the following

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sources and in the following order of preference (TLV was and shall be used if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the ACGIH's "Threshold Limit Value for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "X" hours per day and "Y" hours per week, from that of 8 hours per day and 5 days per week. The resulting calculation was used to determine the MAGLC:

$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$

- d. The following summarizes the results of dispersion modeling for the increase in significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminants:

Toxic Contaminant: Ammonia

TLV (mg/m³): 17.378

Maximum Hourly Emission Rate (lbs/hr): 1.389

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 280.00

MAGLC (ug/m³): 415.00

The permittee has demonstrated that emissions of ammonia are calculated to be less than 80% of the MAGLC; any new raw material or processing agent shall not be applied without evaluation each toxic air contaminant in accordance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F).

2. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F):

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- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the MAGLC for each significant toxic contaminant or worst case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute";
 - c. a copy of the computer model runs that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit to be in compliance with the "Toxic Air Contaminant Statute," initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute" and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit or the materials applied.
3. The permittee shall maintain a record of any change made to parameter or value in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminant Statute" through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason for the change, and a determination of whether the change would increase the ground-level determination.

IV. Reporting Requirements

1. The permittee shall submit annual reports to the Northwest District Office documenting any changes made to a parameter or value in the dispersion model that was used to demonstrate compliance with the "Toxic Air Contaminant Statute" through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit or the exhaust stack have been made, the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

Emissions Unit ID: P570

- a. The emissions testing shall be conducted within 60 days of achieving maximum production but no later than 180 days after initial startup.
- b. The emission testing shall be conducted to demonstrate that ammonia (NH₃) emissions from the selective catalytic reduction (SCR) control device does not exceed 2.05 lbs per hour.
- c. The permittee shall proposed test method(s) to be employed to determine the actual emissions rate of NH₃. The proposed method may only be used with prior approval from Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

Personnel from the Ohio EPA, Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northwest District Office.

VI. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 03-17439 Facility ID: 0302020370

FACILITY NAME PCS Nitrogen Ohio, L.P.

FACILITY DESCRIPTION Nitrogenous Fertilizers CITY/TWP Lima

SIC CODE 2873 SCC CODE 3-01-013-02 EMISSIONS UNIT ID P570

EMISSIONS UNIT DESCRIPTION #2 Nitric Acid Plant

DATE INSTALLED To Be Modified Upon Issuance of PTI

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					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides	Attainment	9.70 lb/hr 0.52 lb/ton of 100% acid	42.49 21.0 from startup and shutdowns	14.5 lb/hr 0.52 lb/ton of 100% acid	63.51 21.0 from startup and shutdowns
Carbon Monoxide					
Lead					
Other: Air Toxics	Ammonia	2.05 lb/hr	8.98	2.05 lb/hr	8.98

APPLICABLE FEDERAL RULES:

NSPS? **G**

NESHAP? N/A

PSD? No

OFFSET POLICY? N/A

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

BAT = use of selective catalytic reduction achieving an emission rate of 0.773 lbs NOx/ton of 100% acid produced

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$ N/A

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*?

x

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

Ammonia