John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

3/20/2014

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Michael Resar
PCS Nitrogen Ohio, L.P.
2200 Fort Amanda Road
Lima, OH 45804

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0302020370
Permit Number: P0116330
Permit Type: Administrative Modification
County: Allen

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA)Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to “Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General’s Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-NWDO; Indiana

FINAL

Division of Air Pollution Control
Permit-to-Install
for
PCS Nitrogen Ohio, L.P.

Facility ID:	0302020370
Permit Number:	P0116330
Permit Type:	Administrative Modification
Issued:	3/20/2014
Effective:	3/20/2014

Division of Air Pollution Control
Permit-to-Install
for
PCS Nitrogen Ohio, L.P.

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Authorization

Facility ID:	0302020370
Facility Description:	Nitrogenous Fertilizers
Application Number(s):	M0002574
Permit Number:	P0116330
Permit Description:	Administrative modification to add NOx emission limit and additional operating scenario for B503 during interim period prior to modification of the emissions unit heat input; and correct typographical errors for J001 emissions unit description.
Permit Type:	Administrative Modification
Permit Fee:	$2,500.00
Issue Date:	3/20/2014
Effective Date:	3/20/2014

This document constitutes issuance to:

PCS Nitrogen Ohio, L.P.
Fort Amanda & Adgate Roads
None
Lima, OH 45804

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section 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 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

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0116330
Permit Description: Administrative modification to add NOx emission limit and additional operating scenario for B503 during interim period prior to modification of the emissions unit heat input; and correct typographical errors for J001 emissions unit description.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**B503**
Company Equipment ID:	NH3 Unit - Primary Reformer
Superseded Permit Number:	P0115063
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**J001**
Company Equipment ID:	DEF, Urea Water, or UAN Sol'n Truck/Railcar Load
Superseded Permit Number:	P0115063
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) 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.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) 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:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, 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 Ohio EPA DAPC, Northwest District Office. The written 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 A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office 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.

(4) This permit is for an emissions unit located at a Title V facility. 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.

5. 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 theOhio EPA DAPC, Northwest District Officein 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).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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:

(1) 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.

(2) 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.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) 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 Ohio EPA DAPC, Northwest District Office 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. 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 Ohio EPA DAPC, Northwest District Office.

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 Ohio EPA DAPC, Northwest District Office. 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, 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.)

10. 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)not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

a) 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.

b) If applicable, authorization to install any new 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 has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as “permanently shut down” in “Air Services” along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d)must be <u>obtained before</u>operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed.The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. 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.

19. 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.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The permittee shall maintain the following records for emissions units B502, B503, B507, B509, B510, J001, J002, P520, P521, P522, P523, P526, P529, P554, P555, P563, P564, T518, T537, T551, T622, T623, T624 and T625 as described in Permit to Install application No. A0047234 submitted on July 10, 2013 in order to demonstrate that the ammonia and urea units expansion project does not trigger a major modification for PM2.5, NOx, CO and/or VOC:

   a. the projected actual annual emissions for PM2.5, NOx, CO and VOC, in tons per year, from the ammonia and urea units' expansion project as submitted in PTI application No. A0047234 submitted on July 10, 2013; and

   b. the total actual annual emissions for PM2.5, NOx, CO and VOC, in tons per year, from emissions units B502, B503, B507, B509, B510, J001, J002, P520, P521, P522, P523, P526, P529, P554, P555, P563, P564, T518, T537, T551, T622, T623, T624 and T625,combined, for ten calendar years after commencing operation of the ammonia and urea units expansion project.

3. The permittee shall notify the Northwest District Office in writing if annual emissions from all emissions units in the ammonia and urea expansion project, as specified in facility-wide term and condition B.2.b., result in a significant PM2.5, NOx, CO and/or VOCemissions increase and exceed the projected actual PM2.5, NOx, CO and/or VOCemissions contained in the application for PTI No. A0047234, submitted July 10, 2013. This notification shall identify the cause for the significant emissions increase and the estimated PM2.5, NOx, CO and/or VOCemissions. This notification shall be submitted to the Northwest District Office within 120 days after the end of such year.

4. The following emissions unit contained in this permit is subject to 40 CFR, Part 60, Subpart Db,Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units: B509. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Ohio EPA, Northwest District Office.

   The permittee shall comply with all applicable requirements of 40 CFR, Part 60, SubpartDb. The permittee shall also comply with all applicable requirements of 40 CFR, Part 60, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 60, Subpart Db, and Subpart A.

5. The following emissions unit contained in this permit is subject to 40 CFR, Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters: B509. The complete NESHAPS requirements, including the NESHAPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Ohio EPA, Northwest District Office.

The permittee shall comply with all applicable requirements of 40 CFR, Part 63, SubpartDDDDD. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart DDDDD, and Subpart A.

6. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: P526, P563 and P564. The complete NESHAPS requirements, including the NESHAPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Ohio EPA, Northwest District Office.

   The permittee shall comply with all applicable requirements of 40 CFR, Part 63, SubpartFFFF. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart FFFF, and Subpart A.

7. This PTI addresses a modification of facility operations associated with an ammonia and urea expansion project to produce more ammonia to be used for: 1) additional shipment of anhydrous ammonia offsite to other PCS facilities and/or customers, and 2) additional urea synthesis to produce more urea solutions, such as diesel exhaust fluid (DEF) for additional shipment offsite to customers. The requirements of this permit shall become enforceable on the date the permittee commences operation under the modification authorized by this permit. Identification of the specific date modified operation commences is required by term A.13.b) within the Standard Terms and Conditions of this permit. Authorization and permitting requirements associated with the current operation (prior to modification) of emissions units B503, B507, J001, P520, P521, P522, P523, P526, P563, and P564 are contained in the facility's Title V permit and are incorporated by reference (IBR) as requirements of this permit as indicated by the following:

   a) The permittee shall comply with all applicable emission limitations/control measures, operational restrictions, monitoring and record keeping requirements, reporting requirements, testing requirements, and additional term and condition requirements contained in the facility's Final Title V Chapter 3745-77 permit with an issuance and effective date of 02/27/13. The IBR requirements shall cease to be enforceable for each emissions unit after the date an emissions unit commences operation under the modification authorized by this permit as indicated above.

C. Emissions Unit Terms and Conditions

1. B503, Ammonia Unit - Primary Reformer

Operations, Property and/or Equipment Description:

Ammonia Unit - Primary Reformer (750.1 million Btu/hr - Natural Gas, Tail, Flash, Purge and Regeneration Fuel Gas Fired)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)i. and d)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	5.61 lbs of particulate emissions/ particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter ($PE/PM_{10}/PM_{2.5}$)/hr and 24.58 tons of $PE/PM_{10}/PM_{2.5}$/yr 0.35 lb of sulfur dioxide (SO2)/hr and 1.54 tons of SO2/yr 190.05 lbs of nitrogen oxides (NOx)/hr and 832.43 tons of NOx/yr [See b)(2)k.] 4.95 lbs of carbon monoxide (CO)/hr and 21.69 tons of CO/yr 4.06 lbs of volatile organic compounds (VOC)/hr and 17.79 tons of VOC/yr See b)(2)a. through b)(2)c.
b.	ORC 3704.03(T)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, except as provided by rule
d.	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input [See b)(2)e.]

e.	OAC rule 3745-18-08(D)(2)	1.27 lb of SO2/mmBtu of actual heat input [See b)(2)f.]
f.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)g. and b)(2)h.
g.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)i.
h.	OAC rules 3745-31-10 through 3745-31-20	Carbon dioxide equivalents (CO_2e) as greenhouse gas (GHG) emissions shall not exceed 390,357 tons per rolling, 12-month period See b)(2)j., d)(2) and e)(2)
i.	ORC 3704.03(F) and OAC rule 3745-114	See d)(3)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under its physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., b, c., d., and e. for details regarding the PTEs.

b. It is assumed that all PE are equivalent to both PM_{10} and $PM_{2.5}$.

c. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 5.61 lbs of PE/PM_{10}/$PM_{2.5}$/hr and 24.58 tons of PE/PM_{10}/$PM_{2.5}$/yr;

ii. 0.35 lb of SO2/hr and 1.54 tons of SO2/yr;

iii. 190.05 lbs of NOx/hr and 832.43 tons of NOx/yr;

iv. 4.95 lbs of CO/hr and 21.69 tons of CO/yr; and

v. 4.06 lbs of VOC/hr and 17.79 tons of VOC/yr.

d. Best Available Technology (BAT) requirements for PE/PM_{10}/$PM_{2.5}$, NOx, CO and VOC emissions under ORC 3704.03(T) have been determined to be compliance with the annual emission limitations for PE/PM_{10}/$PM_{2.5}$, NOx, CO and VOC as established pursuant to OAC rule 3745-31-05(D).

e. The emission limitation of 0.020 lb of particulate emissions (PE) per million Btu of actual heat input specified by OAC 3745-17-10(B)(1) is less stringent than the PE limitation specified pursuant to OAC rule 3745-31-05(D).

f. The emission limitation of 1.27 lb of sulfur dioxide (SO2) per million Btu of actual heat input specified by OAC rule 3745-18-08(D)(2) is less stringent than the SO2 limitation specified pursuant to OAC rule 3745-31-05(D).

g. BAT requirements for SO2 emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual SO2 emission limitation as established pursuant to OAC rule 3745-31-05(D)..

h. The permittee has satisfied the BAT requirements for SO2 emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

i. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the SO2 emissions since the potential to emit is less than 10 tons per year.

j. The permittee shall employ Best Available Control Technology (BACT) for this emissions unit. BACT has been determined to be the following:

Pollutant	BACT Requirements
CO_2e as GHG emissions	Use of low-carbon gaseous fuels (natural gas, tail, flash, purge and regeneration fuel gas); and Annual burner tuning and heater inspections or during scheduled extended outages for an extended period which would allow safe access (whichever comes later).

k. The NOx emission limitations of 190.05 lbs/hr and 832.43 tons/yr shall become effective on the date the permittee commences operation of emissions unit B503 following completion of the modification authorized by this permit. Identification of the specific date modified operation commences is required by term A.13.b) within the Standard Terms and Conditions of this permit.

Prior to commencing operation following completion of the modification authorized by this permit emissions unit B503 shall be subject to a NOx emission limitation of 0.324 lb/mmBtu as established under OAC rule 3745-31-05(A)(3) in PTI No. P0108792 issued 11/18/2011.

It should be noted that the maximum heat input of emissions unit B503 will remain at a level of 1,300 mmBtu/hr as authorized under under PTI No. P0108792 until operation commences following completion of the modification authorized by this permit. Upon commencement of operation following completion of the modification authorized by this permit the maximum heat input will be 750.1 mmBtu/hr as indicated in the equipment description above.

c) Operational Restrictions

(1) The permittee shall burn only natural gas, tail gas, flash gas, purge gas, or regeneration (regen.) fuel gas in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, tail, flash, purge or regen. fuel gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall record the following for this emissions unit:

a. the volume, in million standard cubic feet, of natural gas, tail, flash, purge and regen. fuel gas combusted per month;

b. the volume, in million standard cubic feet, of natural gas, tail, flash, purge and regen. fuel gas combusted per rolling, 12-month period;

c. the CO_2e as GHG emission rate, in tons, for each month of operation;

d. the CO_2e as GHG emission rate, in tons, for each rolling, 12-month period;

e. heater design documents; and

f. heater maintenance activities, as completed.

(3) Modeling to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, tail, flash, purge or regen. fuel gas, was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall notify the Director (the Ohio EPA, Northwest District Office) on a quarterly basis, in writing, of:

a. All exceedances of the 390,357 tons per rolling, 12-month period emission limitation for CO_2e as GHG emissions.

The notification shall include a copy of the record and shall be sent to the Director (the Ohio EPA, Northwest District Office) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

5.61 lbs of $PE/PM_{10}/PM_{2.5}$/hr and 24.58 tons of $PE/PM_{10}/PM_{2.5}$/yr

Applicable Compliance Method:

The hourly $PE/PM_{10}/PM_{2.5}$ emission limitation above was developed by the following ratio of fuel firing:

<u>Total maximum heat input</u> = 750.1 million Btu/hr, which consists of a typical composite fuel heat input of 598.7 million Btu/hr from natural gas; plus 123.9 million Btu/hr from tail gas and purge gas, combined; plus 27.7 million Btu/hr from flash gas.

<u>Fuel firing rates</u>: Natural gas = (598.7 million Btu/hr)/(1,020 Btu/scf) = **0.5869 million scf/hr**

Tail gas and purge gas, combined = (123.9 million Btu/hr)/(353.62 Btu/scf) = **0.3504 million scf/hr**

Flash gas = (27.7 million Btu/hr)/(502.18 Btu/scf) = **0.0551 million scf/hr**

Emission factors: natural gas = 7.6 lbs/million scffrom AP-42, Table 1.4-2 (dated 7/98); tail, purge and flash gas, combined = 2.837 lbs/million scf from ratio of fuel gas heat contents in AP-42, Table 1.4-2 (dated 7/98)

$PE/PM_{10}/PM_{2.5}$ emissions =

From natural gas: (7.6 lbs/million scf)(0.5869 million scf/hr) = 4.46 lbs $PE/PM_{10}/PM_{2.5}$/hr;

From tail gas and purge gas, combined: (2.837 lbs/million scf)(0.3504 million scf/hr) = 0.99 lb$PE/PM_{10}/PM_{2.5}$/hr; and

From flash gas: (2.837 lbs/million scf)(0.0551 million scf/hr) = 0.16 lb$PE/PM_{10}/PM_{2.5}$/hr

Total $PE/PM_{10}/PM_{2.5}$ emissions = 4.46 + 0.99 + 0.16 = **5.61 lbs/hr**

Compliance is presumed by only using natural gas, tail gas, flash gas, purge gas or regen. fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitations:

0.35 lb of SO2/hr and 1.54 tons of SO2/yr

Applicable Compliance Method:

The hourly SO2 emission limitation above was developed by multiplying the SO2 emission factor from AP-42, Table 1.4-2 (dated 7/98) (0.6 lb/million scf) by the maximum heat input of 598.7 million Btu/hr when firing natural gas (all other fuels fired have negligible sulfur content), then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas, tail gas, flash gas, purge gas or regen. fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 6of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr

emission limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitations:

190.05 lbs of NOx/hr and 832.43 tons of NOx/yr

Applicable Compliance Method:

The hourly NOx emission limitation above was developed by the following ratio of fuel firing:

Total maximum heat input = 750.1 million Btu/hr, which consists of a typical composite fuel heat input of 598.7 million Btu/hr from natural gas; plus 123.9 million Btu/hr from tail gas and purge gas, combined; plus 27.7 million Btu/hr from flash gas.

Fuel firing rates: Natural gas = (598.7 million Btu/hr)/(1,020 Btu/scf) = **0.5869 million scf/hr**

Tail gas and purge gas, combined = (123.9 million Btu/hr)/(353.62 Btu/scf) = **0.3504 million scf/hr**

Flash gas = (27.7 million Btu/hr)/(502.18 Btu/scf) = **0.0551 million scf/hr**

Emission factors: natural gas = 252 lbs/million scf based on vendor guaranteed value which is a 10 percent reduction from AP-42, Table 1.4-1 (dated 7/98) emission factor of 280 lbs/million scf due to burner modifications and upgrades during maintenance turnaround conducted in 2010; tail gas, purge gas and flash gas, combined = 94.085 lbs/million scf from ratio of fuel gas heat contents in AP-42, Table 1.4-1 (dated 7/98); plus an additional 0.286 lb/lb ammonia combusted from tail gas, purge gas and flash gas based on vendor information and review of previous stack test reports

NOx emissions =

From natural gas: (252 lbs/million scf)(0.5869 million scf/hr) = 147.90 lbs NOx/hr;

From tail gas and purge gas, combined: (94.085 lbs/million scf)(0.3504 million scf/hr) = 32.97 lbsNOx/hr;

From flash gas: (94.085 lbs/million scf)(0.0551 million scf/hr) = 5.18 lbsNOx/hr; and

From tail gas, purge gas and flash gas, combined, introduced into reformer for combustion of ammonia, from vendor information: (0.286 lb/lb ammonia combusted)(13.991 lbs ammonia/hr) = 4.00 lbs NOx/hr

Total NOx emissions = 147.90 + 32.97 + 5.18 + 4.00 = **190.05 lbs/hr**

The permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 7of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

d. Emission Limitations:

4.95 lbs of CO/hr and 21.69 tons of CO/yr

Applicable Compliance Method:

The hourly CO emission limitation above was developed from previous stack test, and adjusted to remove turbine emissions, plus a margin of 15 percent. Compliance is presumed by only using natural gas, tail, flash, purge or regeneration fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

e. Emission Limitations:

4.06 lbs of VOC/hr and 17.79 tons of VOC/yr

Applicable Compliance Method:

The hourly VOC emission limitation above was developed by the following ratio of fuel firing:

<u>Total maximum heat input</u> = 750.1 million Btu/hr, which consists of a typical composite fuel heat input of 598.7 million Btu/hr from natural gas; plus 123.9 million Btu/hr from tail gas and purge gas, combined; plus 27.7 million Btu/hr from flash gas.

Fuel firing rates: Natural gas = (598.7 million Btu/hr)/(1,020 Btu/scf) = **0.5869 million scf/hr**

Tail gas and purge gas, combined = (123.9 million Btu/hr)/(353.62 Btu/scf) = **0.3504 million scf/hr**

Flash gas = (27.7 million Btu/hr)/(502.18 Btu/scf) = **0.0551 million scf/hr**

Emission factors: natural gas = 5.5 lbs/million scf from AP-42, Table 1.4-2 (dated 7/98); tail gas, purge gas and flash gas, combined = 2.053 lbs/million scf from ratio of fuel gas heat contents in AP-42, Table 1.4-2 (dated 7/98)

VOC emissions =

From natural gas: (5.5 lbs/million scf)(0.5869 million scf/hr) = 3.23 lbs VOC/hr;

From tail gas and purge gas, combined: (2.053 lbs/million scf)(0.3504 million scf/hr) = 0.72 lbVOC/hr; and

From flash gas: (2.053 lbs/million scf)(0.0551 million scf/hr) = 0.11 lbVOC/hr

Total VOC emissions = 3.23 + 0.72 + 0.11 = **4.06 lbs/hr**

Compliance is presumed by only using natural gas, tail gas, flash gas, purge gas or regen. fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

f. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

g. Emission Limitation:

CO_2e as GHG emissions shall not exceed 390,357 tons per rolling, 12-month period

Applicable Compliance Method:

The rolling, 12-month period GHG emission limitation above was developed by the following ratio of fuel firing:

Total maximum heat input = 750.1 million Btu/hr, which consists of a typical composite fuel heat input of 598.7 million Btu/hr from natural gas; plus 123.9 million Btu/hr from tail gas and purge gas, combined; plus 27.7 million Btu/hr from flash gas.

Fuel firing rates: Natural gas = (598.7 million Btu/hr)/(1,020 Btu/scf) = **0.58692 million scf/hr**

Tail gas and purge gas, combined = (123.9 million Btu/hr)/(353.62 Btu/scf) = **0.350364 million scf/hr**

Flash gas = (27.7 million Btu/hr)/(502.18 Btu/scf) = **0.05510 million scf/hr**

Emission factors: natural gas = 120,000 lbsCO_2/million scf, 2.3 lbs CH_4/million scf multiplied by GWP of 25, and 2.2 lbs N_2O/million scf multiplied by GWP of 298 from AP-42, Table 1.4-2 (dated 7/98); tail, purge, and flash gas combined = 44,802.35 lbsCO_2/million scf, 0.858712 lbs CH_4/million scf multiplied by GWP of 25, and 0.821376 lbs N_2O/million scf multiplied by GWP of 298 from ratio of fuel gas heat contents in AP-42, Table 1.4-2 (dated 7/98)

GHG (CO_2e) emissions =

From natural gas:

(120,000 lbsCO_2/million scf)(0.58692 million scf/hr) = 70,430.4 lbs CO_2/hr;

(2.3 lbs CH_4/million scf)(0.58692 million scf/hr) = 1.34992 lbs CH_4/hr;

(2.2 lbs N_2O/million scf)(0.58692 million scf/hr) = 1.29122 lbs N_2O/hr;

70,430.4 lbs CO_2/hr + (1.34992 lbs CH_4/hr)(25) + (1.29122 lbs N_2O/hr)(298) = 70,848.9 lbs GHG(CO_2e)/hr

From tail gas and purge gas, combined:

(44,802.35 lbsCO_2/million scf)(0.35036 million scf/hr) = 15,697.0 lbsCO_2/hr;

(0.858712 lbs CH_4/million scf)(0.35036 million scf/hr) = 0.300858 lbs CH_4/hr;

(0.821376 lbs N_2O/million scf)(0.35036 million scf/hr) = 0.287777 lbs N_2O/hr;

15,697.0 lbs CO_2/hr + (0.300858 lbs CH_4/hr)(25) + (0.287777 lbs N_2O/hr)(298) = 15,790.3 lbs GHG(CO_2e)/hr

From flash gas:

(44,802.35 lbsCO_2/million scf)(0.05510 million scf/hr) = 2,468.6 lbsCO_2/hr;

(0.858712 lbs CH_4/million scf)(0.05510 million scf/hr) = 0.047315 lbs CH_4/hr;

(0.821376 lbs N_2O/million scf)(0.05510 million scf/hr) = 0.045258 lbs N_2O/hr;

2,468.6 lbs CO_2/hr + (0.047315 lbs CH_4/hr)(25) + (0.045258 lbs N_2O/hr)(298) = 2,483.3 lbs GHG(CO_2e)/hr

Total GHG (CO_2e) emissions = 70,848.9 + 15,790.3 + 2,483.3 = 89,122.5 lbs/hr

(89,122.5 lbs/hr)(8,760 hrs/rolling 12-month period)/(2,000 lbs/ton) = 390,357 tons GHG(CO_2e)/rolling, 12-month period

Compliance shall be demonstrated by the monitoring and record keeping requirements in d)(2).

h. Emission Limitation:

0.324 lb of NOx/mmBtu

Applicable Compliance Method:

The emission limitation represents the PTE (defined as the maximum capacity to emit an air pollutant under the physical and operational design). The PTE is based on a stack test conducted on 12/09/00.

If required, the permittee shall demonstrate compliance with this emission limitation pursuant to testing in accordance with the methods and procedures specified in Method 1 through 4, and 7 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unitin accordance with the following requirements:

a. The emission testing shall be conducted within six months of completion of installation and commencement of operation in modified mode for the equipment associated with the urea and ammonia expansion project for this PTI.

The emission testing shall be conducted to demonstrate compliance with theallowable emission rate of 190.05 lbs of NOx/hr.

b. The following test methods shall be employed to demonstrate compliance withthe allowable mass emission rate for NOx: Methods 1 through 4, and 7 of 40CFR,

Part 60, Appendix A. Alternate U.S. EPA-approved test methods may be used withprior approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at itsmaximum capacity, unless otherwise specified or approved by the Ohio EPA,Northwest District Office.

d. Not later than 30 days prior to the proposed test date(s), the permittee shallsubmit an "Intent to Test" notification to the Ohio EPA,Northwest District Office. The "Intent to Test" notification shall describe in detail theproposed test methods and procedures, the emissions unit operatingparameters, the time(s) and date(s) of the test(s), and the person(s) who will beconducting the test(s).

Failure to submit such notification for review and approvalprior to the test(s) may result in the Ohio EPA,Northwest District Office's refusal to accept the results of the emission test(s).

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

f. A comprehensive written report on the results of the emissions test(s) shall besigned by the person or persons responsible for the tests and submitted to the Ohio EPA,Northwest District Office within 30 days followingcompletion 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.

g) Miscellaneous Requirements

(1) None.

2. B507, Ammonia Load Heater

Operations, Property and/or Equipment Description:

Ammonia Load Heater (product area) (40 million Btu/hr - Natural Gas Fired)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)f. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	0.082 lb of carbon monoxide (CO)/million Btu See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D)	3.92 lbs of nitrogen oxides (NOx)/hr and 17.18 tons of NOx/yr See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
e.	OAC rule 3745-18-06(E)	Exempt, see b)(2)c.
f.	ORC 3704.03(F) and OAC rule 3745-114	See d)(2)
g.	OAC rules 3745-31-10 through 3745-31-20	See b)(2)d.

(2) Additional Terms and Conditions

a. The CO emissions limitation was previously established in permit-to-install No. P0105861, issued on 5/21/10. Best Available Technology (BAT) requirements for NOx emissions under ORC 3704.03(T) have been determined to be compliance with the annual NOx emission limitation as established pursuant to OAC rule 3745-31-05(D).

b. The mass emission rate limitations in b)(1)a. and b)(1)b. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design.

Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and f)(1)b. for details regarding the PTE.

Emissions from the ammonia load heater are associated with the combustion of natural gas and include: particulate emissions (PE), particulate matter 10 microns or less in size (PM_{10}), particulate matter 2.5 microns or less in size ($PM_{2.5}$), organic compounds (OC), volatile organic compounds (VOC), and sulfur dioxide (SO2).

The uncontrolled potential emissions of PE, PM_{10}, $PM_{2.5}$, OC, VOC, and SO2 are of negligible quantities for criteria pollutants and therefore have not been addressed within this permit.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

d. Greenhouse gas (GHG) emissions, specifically carbon dioxide equivalents (CO_2e), resulting from combustion of natural gas have been determined to be negligible for this emissions unit.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.082 lb of CO/million Btu

Applicable Compliance Method:

The emission limitation represents the PTE (defined as the maximum capacity to emit an air pollutant under the physical and operational design). The PTE is based on a heat content of 1,020 Btu/scf and a CO emission factor of 84 lbs/million scf (AP-42, Table 1.4-1 [7/98]).

If required, the permittee shall demonstrate compliance with this emission limitation pursuant to Methods 1 through 4, and 10 of 40 CFR, Part 60, Appendix A.

b. Emission Limitations:

3.92 lbs of NOx/hr and 17.18 tons of NOx/yr

Applicable Compliance Method:

The emission limitation represents the PTE (defined as the maximum capacity to emit an air pollutant under the physical and operational design). The PTE is based on a heat content of 1,020 Btu/scf and a NOx emission factor of 100 lbs/million scf (AP-42, Table 1.4-1 [7/98]).

If required, the permittee shall demonstrate compliance with this emission limitation pursuant to Methods 1 through 4, and 7 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

Emission Limitation:

0.020 lb PE/million Btu of actual heat input

Applicable Compliance Method:

The permittee may demonstrate compliance with the PE limitation above by multiplying the maximum hourly natural gas consumption rate (0.0392 million scf/hr) by an AP-42 emission factor of 1.9 lbs PE (filterable)/million scf (AP-42, Table 1.4-2 [7/98]), and then dividing by the maximum heat input capacity of the heater (40 million Btu/hr).

If required, compliance with the lb/million Btu PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

g) Miscellaneous Requirements

(1) None.

3. B509, Ammonia Unit - Boiler #3

Operations, Property and/or Equipment Description:

Ammonia Unit - Boiler #3 (227 million Btu/hr - Natural Gas Fired)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)k. and d)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	1.69 lbs of particulate emissions/ particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter (PE/PM_{10}/$PM_{2.5}$)/hr and 7.41 tons of PE/PM_{10}/$PM_{2.5}$/yr 0.13 lb of sulfur dioxide (SO2)/hr and 0.58 ton of SO2/yr 22.70 lbs of nitrogen oxides (NOx)/hr and 99.43 tons of NOx/yr 18.69 lbs of carbon monoxide (CO)/hr and 81.88 tons of CO/yr 1.22 lbs of volatile organic compounds (VOC)/hr and 5.36 tons of VOC/yr See b)(2)a. through b)(2)c.
b.	ORC 3704.03(T)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input [See b)(2)e.]

e.	OAC rule 3745-18-06(E)	Exempt, see b)(2)f.
f.	40 CFR, Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 63.7575, this emissions unit is a gaseous fuel 1 subcategory new process heater located at a major source of HAP emissions and subject to the applicable requirements specified in this section.]	See b)(2)g., c)(2) and c)(3) 63.7500(a) Table 3 requirements
g.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)h. and b)(2)i.
h.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)j.
i.	OAC rules 3745-31-10 through 3745-31-20	Carbon dioxide equivalents (CO_2e) as greenhouse gas (GHG) emissions shall not exceed 117,214 tons per rolling, 12-month period See b)(2)k., d)(2) and e)(2)
j.	OAC rule 3745-110	See b)(2)l.
k.	ORC 3704.03(F) and OAC rule 3745-114	See d)(4)
l.	40 CFR, Part 60, Subpart Db 40 CFR 60.40b - 60.49b	0.20 lb of NOx (expressed as NO_2)/mmBtu of actual heat input on a 30-day rolling average basis [See b)(2)m., d)(3) and e)(3)]

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potential to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., b, c., d., and e. for details regarding the PTE.

b. It is assumed that all PE are equivalent to both PM_{10} and $PM_{2.5.}$

c. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 1.69 lbs of PE/PM_{10}/$PM_{2.5}$/hr and 7.41 tons of PE/PM_{10}/$PM_{2.5}$/yr;

ii. 0.13 lb of SO2/hr and 0.58 ton of SO2/yr;

iii. 22.70 lbs of NOx/hr and 99.43 tons of NOx/yr;

iv. 18.69 lbs of CO/hr and 81.88 tons of CO/yr; and

v. 1.22 lbs of VOC/hr and 5.36 tons of VOC/yr.

d. Best Available Technology (BAT) requirements for NOx and CO emissions under ORC 3704.03(T) have been determined to be compliance with the annual emission limitations for NOx and CO as established pursuant to OAC rule 3745-31-05(D).

e. The emission limitation of 0.020 lb of particulate emissions (PE) per million Btu of actual heat input specified by OAC 3745-17-10(B)(1) is less stringent than the PE limitation specified pursuant to OAC rule 3745-31-05(D).

f. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

g. This emissions unit is subject to the initial notification requirements of 40 CFR, Part 63, Subpart DDDDD (Boiler MACT) as outlined in 63.9(b) (i.e., it is not subject to the emission limits, performance testing, monitoring, or site-specific monitoring plan requirements of Subpart DDDDD or any other requirements in 40 CFR, Part 63, Subpart A).

h. BAT requirements for PE/PM_{10}/$PM_{2.5}$, SO2 and VOC emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual emission limitations for PE/PM_{10}/$PM_{2.5}$, SO2 and VOC as established pursuant to OAC rule 3745-31-05(D).

i. The permittee has satisfied the BAT requirements for PE/PM_{10}/$PM_{2.5}$, SO2 and VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

j. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PE/PM_{10}/$PM_{2.5}$, SO2 and VOC emissions since the potential to emit is less than 10 tons per year.

k. The permittee shall employ Best Available Control Technology (BACT) for this emissions unit. BACT has been determined to be the following:

Pollutant	BACT Requirements
CO_2e as GHG emissions	Use of low-carbon gaseous fuel (natural gas); and Burner tuning and heater inspection every 5 years.

l. Pursuant to OAC rule 3745-110-01(B)(19), this emissions unit is a new large boiler. The emissions limitations for NOx in OAC rule 3745-110-03(C) are as stringent as the NOx emission limitation established pursuant to OAC rule 3745-31-05(D).

m. The emission limitation of 0.20 lb of NOx (expressed as NO_2)/mmBtu of actual heat input on a 30-day rolling average basis specified by 40 CFR 60.44b(i) and (l)(1) for a boiler with "high heat release rate" is less stringent than the NOx limitation specified pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

(2) Pursuant to 40 CFR 63.7540(a)(12), because this emissions unit is a process heater or boiler in the Gas 1 subcategory with a continuous oxygen trim system that maintains an optimum air to fuel ratio, the permittee shall conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through 63.7540(a)(10)(vi). The permittee may delay the burner inspection specified in paragraph 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. Pursuant to 40 CFR 63.7540(a)(13), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(3) The permittee shall have a one-time energy assessment performed by a qualified energy assessor, pursuant to work practice standards 4.a through 4.h in Table 3 of 40 CFR, Part 63, Subpart DDDDD. The subsequent report associated with this assessment shall be submitted no later than January 31, 2016.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall record the following for this emissions unit:

a. the volume, in million standard cubic feet, of natural gas combusted per month;

b. the volume, in million standard cubic feet, of natural gas combusted per rolling, 12-month period;

c. the CO_2e, as GHG, emission rate, in tons, for each month of operation;

d. the CO_2e, as GHG, emission rate, in tons, for each rolling, 12-month period;

e. heater design documents; and

f. heater maintenance activities, as completed.

(3) The permittee shall perform the following monitoring and record keeping requirements contained in 40 CFR, Part 60, Subpart Db for purposes of demonstrating compliance with the 0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis emission limitation:

a. The permittee shall install, calibrate, maintain, and operate CEMS for measuring NOx and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system. [40 CFR 60.48b(b)(1)]

b. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.[40 CFR 60.48b(c)]

c. The 1-hour average NOx emission rates measured by the continuous NOx monitor required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/mmBtu heat input and shall be used to calculate the average emission rates. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]

d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for NOx is determined using the procedures in 40 CFR 60.48b(e)(2)(i). [40 CFR 60.48b(e)(2)]

e. When NOx emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75% of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.[40 CFR 60.48b(f)]

f. The permittee shall record and maintain records of the amount of natural gas combusted during each day and calculate the annual capacity factor for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.[40 CFR 60.49b(d)(1)]

g. The permittee shallmaintain records of the following information for each steam generating unit operating day:[40 CFR 60.49b(g)]

i. Calendar date;

ii. The average hourly NOx emission rates (expressed as NO2) (ng/J or lb/mmBtu heat input) measured or predicted;

iii. The 30-day average NOx emission rates (ng/J or lb/mmBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly NOx emission rates for the preceding 30 steam generating unit operating days;

iv. Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emission limitation (specified above in b)(1)l.), with the reasons for such excess emissions as well as a description of corrective actions taken;

v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

vii. Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

viii. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

ix. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

x. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

h. All records required under this section shall be maintained by the permittee for a period of 2 years following the date of such record.[40 CFR 60.49b(o)]

(4) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall notify the Director (the Ohio EPA, Northwest District Office) on a quarterly basis, in writing, of:

a. All exceedances of the 117,214 tons per rolling, 12-month period emission limitation for CO_2e as GHG emissions.

The notification shall include a copy of the record and shall be sent to the Director (the Ohio EPA, Northwest District Office) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

(3) The permittee shall perform the following reporting requirements contained in 40 CFR. Part 60, Subpart Db:

a. The permittee shall submit notification of the date of initial startup, as provided by 40 CFR 60.7. This notification shall include:[40 CFR 60.49b(a)]

i. The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; and [40 CFR 60.49b(a)(1)]

ii. The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired. [40 CFR 60.49b(a)(3)]

b. The permittee shallsubmit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR, Part 60.[40 CFR 60.49b(b)]

c. The permittee shallsubmit excess emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as any calculated 30-day rolling average NOx emission rate that exceeds the applicable emission limit.[40 CFR 60.49b(h)]

d. The permittee shall submit reports containing the information recorded under the recordkeeping requirements in d)(3)g. [40 CFR 60.49b(i)]

e. The permittee may submit electronic quarterly reports for NOx in lieu of submitting the written reports required under 40 CFR 60.49b(h) or (i). The format

of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v)]

f. The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.[40 CFR 60.49b(w)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

1.69 lbs of PE/PM_{10}/$PM_{2.5}$/hr and 7.41 tons of PE/PM_{10}/$PM_{2.5}$/yr

Applicable Compliance Method:

The hourly PE/PM_{10}/$PM_{2.5}$ emission limitation above was developed by multiplying the PE/PM_{10}/$PM_{2.5}$ emission factor from AP-42, Table 1.4-2 (dated 7/98) (7.6 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitations:

0.13 lb of SO2/hr and 0.58 ton of SO2/yr

Applicable Compliance Method:

The hourly SO2 emission limitation above was developed by multiplying the SO2 emission factor from AP-42, Table 1.4-2 (dated 7/98) (0.6 lb/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 6of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitations:

22.70 lbs of NOx/hr and 99.43 tons of NOx/yr

Applicable Compliance Method:

The hourly NOx emission limitation above was developed by multiplying the required Ohio EPA NOx Reasonably Available Control Technology emission limit of 0.1 lb/million Btu from OAC rule 3745-110-03(C) by the maximum heat input of 227 million Btu/hr. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 7of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

d. Emission Limitations:

18.69 lbs of CO/hr and 81.88 tons of CO/yr

Applicable Compliance Method:

The hourly CO emission limitation above was developed by multiplying the CO emission factor from AP-42, Table 1.4-1 (dated 7/98) (84 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton.

Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

e. Emission Limitations:

1.22 lbs of VOC/hr and 5.36 tons of VOC/yr

Applicable Compliance Method:

The hourly VOC emission limitation above was developed by multiplying the VOC emission factor from AP-42, Table 1.4-2 (dated 7/98) (5.5 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

f. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

g. Emission Limitation:

CO2e as GHG emissions shall not exceed 117,214 tons per rolling, 12-month period

Applicable Compliance Method:

The allowable CO_2e as GHG emissions limitation was established to reflect the potential to emit for this emissions unit based on emissions factorsof 120,000 lbs CO_2/million scf, 2.3 lbs CH_4/million scf multiplied by GWP of 25, and 0.64 lbs N_2O/million scf multiplied by GWP of 298 from AP-42,Table 1.4-2 (dated 7/98) multiplied by the maximumheat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf, and then multiplying by the maximum annual hours of operation (8,760 hrs/yr) and dividing by 2,000 pounds per ton.

Compliance shall be demonstrated by the monitoring and record keeping requirements in d)(2).

h. Emission Limitation:

0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis

Applicable Compliance Method:

The permittee shall demonstrate compliance with the 30-day rolling average emission limitation by conducting the performance testing as required under 40 CFR 60.8 using the continuous system for monitoring NOx under 40 CFR 60.48(b). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA. [40 CFR 60.46b(e)]

i. For the initial compliance test, NOx from the boiler are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emission limit. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.[40 CFR 60.46b(e)(1)]

ii. Following the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, thepermittee shall, upon request, determine compliance with the NOx emission limit through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data

collected pursuant to 40 CFR 60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.[40 CFR 60.46b(e)(4)]

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unitin accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility. [40 CFR 60.8(a)]

The emission testing shall be conducted to demonstrate compliance with theallowable emission rate of 0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis.

b. The following test methods shall be employed to demonstrate compliance withthe allowable mass emission rate for NOx:using the continuous system for monitoring NOx under 40 CFR 60.48(b).Alternate U.S. EPA-approved test methods may be used withprior approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at itsmaximum capacity, unless otherwise specified or approved by the Ohio EPA,Northwest District Office.

d. Not later than 30 days prior to the proposed test date(s), the permittee shallsubmit an "Intent to Test" notification to the Ohio EPA,Northwest District Office. The "Intent to Test" notification shall describe in detail theproposed test methods and procedures, the emissions unit operatingparameters, the time(s) and date(s) of the test(s), and the person(s) who will beconducting the test(s).

Failure to submit such notification for review and approvalprior to the test(s) may result in the Ohio EPA,Northwest District Office's refusal to accept the results of the emission test(s).

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

f. A comprehensive written report on the results of the emissions test(s) shall besigned by the person or persons responsible for the tests and submitted to the Ohio EPA,Northwest District Office within 30 days followingcompletion 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.

g) Miscellaneous Requirements

(1) None.

4. J001, DEF, Urea Water, or UAN Solution Truck/Railcar Loading

Operations, Property and/or Equipment Description:

DEF, Urea Water, or UAN Solution Truck/Railcar Loading

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)a., d)(1) through d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1) through d)(5) and e)(1).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Air toxic emissions associated with the original installation of this emissions unit (J001) was addressed by PTI #P0109600 issued 3/21/2012. Additional modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(2) PTI #P0109600 issued for this emissions unit, J001, was evaluated using the air dispersion model ISCST3 and the actual materials and the design parameters of the emissions units' exhaust system as specified by the permittee, and as presented in the paragraphs below.

The predicted 1-hour maximum ground-level concentration result(s) 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 Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following 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 American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values 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/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

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

   Toxic Contaminant: Ammonia

   TLV (mg/m3): 17.413

   Maximum Hourly Emission Rate (lbs/hr): 1.574

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 395.68

MAGLC (ug/m3): 414.6

(3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

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

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(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F),

initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit quarterly reports to the appropriate Ohio EPA, Northwest District Office, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect. These quarterly reports shall be submitted by April 30, July 30, October 30, and January 30, and shall cover the records for the previous calendar quarters.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

5. J002, DEF Urea Water Solution Truck/Railcar Load

Operations, Property and/or Equipment Description:

Diesel Exhaust Fluid (DEF) Urea Water Solution Truck/Railcar Loading

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)a. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

6. P520, Ammonia Unit - Reforming

Operations, Property and/or Equipment Description:

Ammonia Unit - Reforming Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)c. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	2,439.85 lbs of carbon monoxide (CO)/hr during emissions unit start-up periods 8.22 lbs of CO/hr during normal production mode of operation 489.83 tons of CO/yr during start-up periods and normal production mode of operation, combined 37.15 lbs of volatile organic compounds (VOC)/hr during emissions unit start-up periods 0.75 lb of VOC/hr during normal production mode of operation 10.20 tons of VOC/yr during start-up periods and normal production mode of operation, combined See b)(2)a., b)(2)b., c)(1), d)(1) and e)(1)
b.	ORC 3704.03(T)	See b)(2)c.
c.	ORC 3704.03(F) and OAC rule 3745-114	See d)(2)
d.	OAC rule 3745-31-10 through 3745-31-20	See b)(2)d.

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. andb., for details regarding the PTE.

b. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit. The federally enforceable limitations are based on the operational restrictions in c)(1):

i. 2,439.85 lbs of CO/hr during emissions unit start-up periods;

ii. 8.22 lbs of CO/hr during normal production mode of operation;

iii. 489.83 tons of CO/yr during start-up periods and normal production mode of operation, combined;

iv. 37.15 lbs of VOC/hr during emissions unit start-up periods;

v. 0.75 lb of VOC/hr during normal production mode of operation; and

vi. 10.20 tons of VOC/yr during start-up periods and normal production mode of operation, combined.

c. Best Available Technology (BAT) requirements for CO and VOC emissions under ORC 3704.03(T) have been determined to be compliance with the annual emission limitations for CO and VOC as established pursuant to OAC rule 3745-31-05(D).

d. Greenhouse gas (GHG) emissions, specifically carbon dioxide equivalents (CO_2e), resulting from venting of methane during startups have been determined to be negligible for this emissions unit.

c) Operational Restrictions

(1) Start-up, shutdown, and normal operations for the ammonia reforming unit is limited by the following:

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$$\sum_{M=1} \sum_{n} CO_n \leq 489.83 \text{ and } \sum_{n} VOC_n \leq 10.20$$

where:

M = the increment of the rolling 12-month period;

n = type of operation (i.e. normal, start-up, shutdown) during the period;

CO_n = calculated emissions of carbon monoxide in tons;

VOC_n = calculated emissions of volatile organic compounds in tons;

(2) To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, start-up, shutdown, and normal operations for the ammonia reforming unit is limited by the following:

Allowable Operation Limitations

Month(s)	$\sum_n CO_n \leq$	and	$\sum_n VOC_n \leq$
1-1	100.00	and	2.00
1-2	200.00	and	4.00
1-3	300.00	and	6.00
1-4	400.00	and	8.00
1-12	489.83	and	10.20

After the first 12 calendar months of operation under the provisions of this permit, compliance with the allowable operation limitations shall be based upon a rolling 12-month summation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month:

a. Type and time period of each operation (startup, shutdown, normal);

b. The calculated CO and VOC emissions, in tons, associated with each type of operation, based on a detailed review of startup, shutdown, and normal operations.

c. The total CO and VOC emission rates, in tons, from all operation types [summation of d)(1)b. for startup, shutdown, and normal operations];

d. For the first 12 calendar months of operation under the provisions of this permit, the cumulative monthly CO and VOC emissions, in tons; and

e. After the first 12 months of operation under the provisions of this permit, the rolling 12-month CO and VOC emissions, in tons.

(2) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for

each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year.OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling 12-month operational restriction specified in c)(1); and

b. all exceedances of the allowable operational limitations for the first 12 months of operation as specified in c)(2);

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

2,439.85 lbs of CO/hr during emissions unit start-up periods

Applicable Compliance Method:

The hourly emission limitation during start-up periods is based on PCS Engineering staff system knowledge and a detailed review of operations history. Compliance shall be demonstrated by the recordkeeping requirements in d)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation

8.22 lbs of CO/hr during normal production mode of operation

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit during normal production mode of operation.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

489.83 tons of CO/yr during start-up periods and normal production mode of operation, combined

Applicable Compliance Method:

The annual emission limitation is based on 453.81 tons of CO/yr during emissions unit start-up periods: (2,439.85 lbs of CO/hr)(372 hrs/yr of start-up)/(2,000 lbs/ton); plus an additional 36.02 tons of CO during the remaining 8,388 hrs/yr. Compliance with the annual emission limitation shall be demonstrated by the recordkeeping requirements in d)(1).

The 36.02 tons of CO/yr is based on previous stack testing, and reflects the potential to emit (PTE) for this emissions unit during normal production operating mode. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

d. Emission Limitation:

37.15 lbs of VOC/hr during emissions unit start-up periods

Applicable Compliance Method:

The hourly emission limitation during start-up periods is based on PCS Engineering staff system knowledge and a detailed review of operations history. Compliance shall be demonstrated by the recordkeeping requirements in d)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

e. Emission Limitation:

0.75 lb of VOC/hr during normal production mode of operation

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit during normal production mode of operation.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

f. Emission Limitation:

10.20 tons of VOC/yr during start-up periods and normal production mode of operation, combined

Applicable Compliance Method:

The annual emission limitation is based on 6.91 tons of VOC/yr during emissions unit start-up periods: (37.15 lbs of VOC/hr)(372 hrs/yr of start-up)/(2,000 lbs/ton); plus an additional 3.29 tons of VOC during the remaining 8,388 hrs/yr. Compliance with the annual emission limitation shall be demonstrated by the recordkeeping requirements in d)(1).

The 3.29 tons of VOC/yr is based on previous stack testing, and reflects the potential to emit (PTE) for this emissions unit during normal production operating mode.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

g) Miscellaneous Requirements

(1) None.

7. P521, Ammonia Unit - Purification

Operations, Property and/or Equipment Description:

Ammonia Unit - Purification Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	2.62 lbs of carbon monoxide (CO)/hr and 11.49 tons of CO/yr 0.37 lb of volatile organic compounds (VOC)/hr and 1.62 tons of VOC/yr See b)(2)a. and b)(2)b.
b.	ORC 3704.03(T)	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)d. and b)(2)e.
d.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)f.
e.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potential to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. andb. for details regarding the PTE.

b. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 2.62 lbs of CO/hr and 11.49 tons of CO/yr; and

ii. 0.37 lb of VOC/hr and 1.62 tons of VOC/yr.

c. Best Available Technology (BAT) requirements for CO emissions under ORC 3704.03(T) have been determined to be compliance with the annual CO emission limitation as established pursuant to OAC rule 3745-31-05(D).

d. BAT requirements for VOC emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

e. The permittee has satisfied the BAT requirements for VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

f. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions since the potential to emit is less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

2.62 lbs of CO/hr and 11.49 tons of CO/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitations:

0.37 lb of VOC/hr and 1.62 tons of VOC/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

g) Miscellaneous Requirements

(1) None.

8. P522, NH3 Unit - Synthesis

Operations, Property and/or Equipment Description:

Ammonia Unit - Synthesis Section, with South Stripper Stack Flare

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)f. and d)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Emissions from the flare:</u> Visible particulate emissions (PE) from the flare shall not exceed 5% opacity, as a 6-minute average. 2.41 lbs of carbon monoxide (CO)/hr and 10.55 tons of CO/yr during normal production mode of operation <u>Emissions from process equipment</u>: 6.04 tons of volatile organic compounds (VOC)/yr during normal production mode of operation See b)(2)a., b)(2)b., b)(2)g., c)(1), d)(1) through d)(3), and e)(1) through e)(3)
b.	ORC 3704.03(T)	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)d. and b)(2)e.
d.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)f.
e.	OAC rules 3745-31-10 through 3745-31-20	See b)(2)h.
f.	ORC 3704.03(F) and OAC rule 3745-114	See d)(4)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)b. andc., for details regarding the PTE.

b. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit. The federally enforceable limitation for VOCis based on the operational restriction in c)(1):

i. 2.41 lbs of CO/hr and 10.55 tons of CO/yr from the flare during normal production mode of operation; and

ii. 6.04 tons of VOC/yr from process equipment during normal production mode of operation.

c. Best Available Technology (BAT) requirements for CO emissions under ORC 3704.03(T) have been determined to be compliance with the emission limitations and requirements established pursuant to OAC rule 3745-31-05(D).

d. BAT requirements for VOC emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

e. The permittee has satisfied the BAT requirements for VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

f. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions since the potential to emit is less than 10 tons per year.

g. Criteria pollutant emissions resulting from shutdown events and from combustion of gas streams in the flare have been determined to be negligible for this emissions unit. The VOC emissions that vent through the flare (determined by

previous stack testing)have been determined to be negligible(0.01 ton of VOC/yr). [See c)(2)]

h. Greenhouse gas (GHG) emissions, specifically carbon dioxide equivalents (CO_2e) resulting from combustion of gas streams in the flare have been determined to be negligible for this emissions unit.

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for establishing federally enforceable requirements which limit PTE for VOC [See b)(2)b.ii.]:

a. The maximum amount of methanol used as an anti-freeze agent shall not exceed 1,830 gallons methanol per rolling, 12 month period;

b. To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, methanol usage is limited by the following:

Maximum Allowable Methanol Usage

MONTH(S)	GALLONS
1-1	350
1-2	700
1-3	1,050
1-4	1,400
1-12	1,830

After the first 12 calendar months of operation under the provisions of this permit, compliance with the allowable operation limitations shall be based upon a rolling 12-month summation.

c. The permittee shall employ a flare during all dryer depressuring, loop depressuring and refrigeration depressuring periods. [See b)(2)g.]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is being shut down and when the weather conditions allow, for any visible particulate emissions from the flare 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 visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

(2) The permittee shall maintain records showing that emissions were vented to the flare during all dryer depressuring, loop depressuring and refrigeration depressuring events.

(3) The permittee shall maintain monthly records of the following information:

a. the number of gallons of methanol used for each month;

b. for the first 12 calendar months of operation under the provisions of this permit, the cumulative monthly usage of methanol in gallons; and

c. After the first 12 months of operation under the provisions of this permit, the rolling, 12-month usage of methanol in gallons.

(4) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the flare serving this emissions unit; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(2) If emissions were not vented to the flare during all dryer depressuring, loop depressuring and/or refrigeration depressuring events, the permittee shall notify the Ohio EPA, Northwest District Office within 30 days of such occurrence. The notification shall include calculations that show the emissions of any criteria pollutants from the depressuring events, and if necessary, submit a PTI modification application.

(3) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(1)a; and

b. all exceedances of the allowable methanol usage restrictions for the first 12 months of operation as specified in c)(1)b.;

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the flare shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 9 in Appendix A of 40 CFR, Part 60.

b. Emission Limitations:

2.41 lbs of CO/hr and 10.55 tons of CO/yr from the flare during normal production mode of operation

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit during normal production mode of operation. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitations:

6.04 tons of VOC/yr from process equipment during normal production mode of operation

Applicable Compliance Method:

The VOC emissions are based on mass balance calculations for the use of methanol as an anti-freeze agent during colder weather months to prevent freezing of instrument air systems, and on previous stack testing data upstream of the flare. The annual potential to emit of methanol as an anti-freeze agent is based on using a maximum of 5 gallons of methanol per 12-hour shift, multiplied by two shifts/day, multiplied by 183 days/yr (October 15 to April 15 assumed), multiplied by a solvent density of 6.589 lbs VOC/gallon, then divided by 2,000 lbs/ton = 6.03 tons of VOC/yr. The potential VOC emissions that ventfrom the flare (determined by previous stack testingupstream of the flare) are 0.01 ton of VOC/yr.

Compliance shall also be based on the recordkeeping requirements in d)(3).

g) Miscellaneous Requirements

(1) None.

9. P523, NH3 Unit – Carbon Dioxide (CO_2) Stripper

Operations, Property and/or Equipment Description:

Ammonia Unit – CO_2 Stripper Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)f. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	1.03 lbs of carbon monoxide (CO)/hr and 4.50 tons of CO/yr 49.81 lbs of volatile organic compounds (VOC)/hr and 218.15 tons of VOC/yr See b)(2)b. and b)(2)c.
b.	ORC 3704.03(T)	See b)(2)d.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)e. and b)(2)f.
d.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)g.
e.	OAC rules 3745-31-10 through 3745-31-20	Carbon dioxide equivalents (CO_2e) as greenhouse gas (GHG) emissions shall not exceed 1,031,413 tons emitted per rolling, 12-month period; and 2,404 lbs of CO_2 emitted/ton of ammonia produced, as a rolling, 12-month average These limits were determined based on expected natural gas quality. See b)(2)h., d)(1) and e)(1)
f.	ORC 3704.03(F) and OAC rule 3745-114	See d)(2)

(2) Additional Terms and Conditions

a. The Medium Pressure Condensate Stripper associated with this emissions unit is integral to the process equipment as a product recovery device. Thus, there is no parametric monitoring necessary.

b. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. andb., for details regarding the PTE.

c. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit for this emissions unit:

i. 1.03 lbs of CO/hr and 4.50 tons of CO/yr; and

ii. 49.81 lbs of VOC/hr and 218.15 tons of VOC/yr.

d. Best Available Technology (BAT) requirements for VOC emissions under ORC 3704.03(T) have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

e. BAT requirements for CO emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual CO emission limitation as established pursuant to OAC rule 3745-31-05(D).

f. The permittee has satisfied the BAT requirements for CO emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

g. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the CO emissions since the potential to emit is less than 10 tons per year.

h. The permittee shall employ Best Available Control Technology (BACT) for this emissions unit. Methane (CH_4) emissions as a surrogate for GHG have been determined to be negligible for this emissions unit. BACT has been determined to be the following:

Pollutant	BACT Requirements
CO_2e as GHGemissions	Good operational practices, including the use of CO_2 within the downstream urea synthesis and commercial sale of CO_2 to the on-site, independently owned CO_2plant (when available).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following for this emissions unit to determine the emissions of CO_2e:

a. the amount of ammonia, in tons, produced each month;

b. the $CO_2$and CO_2e emission rates, (after any use of CO_2downstream by urea synthesis and/or the CO_2 plant), in tons, for each month of operation (CO_2determinedby performing stoichiometric calculations following the process chemistry and using monthly natural gas measurements from the natural gas supplier, CH_4 determined using CH_4 content of CO_2 stream);

c. the CO_2 and CO_2e emission rates, (after any use downstream by urea synthesis and/or the CO_2 plant) in tons per rolling, 12-month period; and

d. the CO_2 emission rate, (after any use downstream by urea synthesis and/or the CO_2 plant) in lbs/ton of ammonia produced, as a rolling, 12-month average.

(2) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year.OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall notify the Director (the Ohio EPA, Northwest District Office) on a quarterly basis, in writing, of:

a. All exceedances of the 1,031,413 tons emitted per rolling, 12-month period emission limitation for CO_2e as GHG emissions; and

b. All exceedances of the 2,404 lbs of CO_2 emitted/ton of ammonia produced, as a rolling, 12-month average emission limitation.

The notification shall include a copy of the record and shall be sent to the Director (the Ohio EPA, Northwest District Office) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

1.03 lbs of CO/hr and 4.50 tons of CO/yr

Applicable Compliance Method:

The hourly CO emission limitation above was developed by multiplying an adjusted CO emission factor from AP-42, Table 8.1-1 (dated 7/93) (0.0105 lb/ton of ammonia, which was adjusted from PCS Engineering staff system knowledge, a detailed review of operations history,and process chemistry and conversion data) by the maximum ammonia production rate of 97.917 tons/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitations:

49.81 lbs of VOC/hr and 218.15 tons of VOC/yr

Applicable Compliance Method:

The hourly VOC emission limitation above was developed by multiplying an adjusted VOC emission factor from AP-42, Table 8.1-1 (dated 7/93) (0.5087 lb/ton of ammonia, which was adjusted from PCS Engineering staff system knowledge, a detailed review of operations history,and process chemistry and conversion data) by the maximum ammonia production rate of 97.917 tons/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitation:

CO_2e as GHG emissions shall not exceed 1,031,413 tons emitted per rolling, 12-month period

Applicable Compliance Method:

The rolling, 12-month period GHG emission limitation above was developed by multiplying an adjusted CO_2 emission factor from AP-42, Table 8.1-1 (dated 7/93) (2,403.8 lb/ton of ammonia, which was adjusted from PCS Engineering staff system knowledge, a detailed review of operations history,and process chemistry and conversion data) and a CH_4 emission factor from the CH_4 content of the CO_2 stream (0.0451 lb/ton of ammonia, multiplied by GWP of 25) by the maximum ammonia production rate of 97.91667 tons/hr, then multiplying by 8,760 hrs/yr, and then dividing by 2,000 lbs/ton.

Compliance shall be demonstrated by the monitoring and record keeping requirements in d)(1).

d. Emission Limitation:

2,404 lbs of CO_2 emitted/ton of ammonia produced, as a rolling, 12-month average

Applicable Compliance Method:

The lbs/ton GHG emission limitation above was developed by adjusting the CO_2emission factor from AP-42, Table 8.1-1 (dated 7/93) considering PCS Engineering staff system knowledge, a detailed review of operations history,and

process chemistry and conversion data. Compliance shall be demonstrated by the monitoring and record keeping requirements in d)(1).

g) Miscellaneous Requirements

(1) None.

10. P526, Urea Plant - Synthesis

Operations, Property and/or Equipment Description:

Urea Plant - Synthesis Section, with Flare during start-up periods

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e. and d)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Emissions from Urea Unit Flare</u>: 187.5 lbs of nitrogen oxides (NOx)/hr and 0.75 ton of NOx/yrduring emissions unit start-up periods when start-up venting is taking place Visible particulate emissions (PE) from the flare shall not exceed 5% opacity, as a 6-minute average during emissions unit start-up periods when start-up venting is taking place <u>Emissions from Urea Plant Synthesis process equipment</u>: 2.85 lbs of volatile organic compounds (VOC)/hr and 12.50 tons of VOC/yr during normal production mode of operation See b)(2)a., b)(2)b., b)(2)g., c)(1), d)(1) through d)(3), and e)(1) through e)(3)
b.	ORC 3704.03(T)	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)d. and b)(2)e.
d.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)f.
e.	ORC 3704.03(F) and OAC rule	See d)(3)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	3745-114	
f.	OAC rule 3745-21-09(DD)	See b)(2)h., d)(4) and e)(3)
g.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440,this emissions unit is an existingaffected source consisting of a pressurized reactor;which is partof a miscellaneous organic chemicalmanufacturing process unit at anexisting chemical manufacturingfacility subject to the emissionlimitations/control measuresspecified in this section.	See b)(2)i., d)(5), and e)(4)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potential to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. andc., for details regarding the PTE.

b. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 187.5 lbs of NOx/hr and 0.75 ton of NOx/yr during emissions unit start-up periodswhen start-up venting is taking place; [See c)(1)] and

ii. 2.85 lbs of VOC/hr and 12.50 tons of VOC/yr during normal production mode of operation.

c. Best Available Technology (BAT) requirements for VOC emissions under ORC 3704.03(T) have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

d. BAT requirements for NOx emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual NOx emission limitation as established pursuant to OAC rule 3745-31-05(D).

e. The permittee has satisfied the BAT requirements for NOx emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions

less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP).

Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

f. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan. The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the NOx emissions since the potential to emit is less than 10 tons per year.

g. Criteria pollutant emissions resulting from shutdown events have been determined to be negligible for this emissions unit.

h. The permittee shall comply with the applicable requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(1)	Compliance requirements
OAC rule 3745-21-09(DD)(3)	Compressors
OAC rule 3745-21-09(DD)(4)	Pressure relief devices in gas/vapor service
OAC rule 3745-21-09(DD)(5)	Sampling connection systems
OAC rule 3745-21-09(DD)(6)	Open-ended valves or lines
OAC rule 3745-21-09(DD)(7)	Equipment designated for no detectable emissions
OAC rule 3745-21-09(DD)(8)	Barrier fluid systems and sensors for pumps and compressors
OAC rule 3745-21-09(DD)(9)	Closed vent systems
OAC rule 3745-21-09(DD)(10)	Control equipment
OAC rule 3745-21-09(DD)(11)	Delay of repair
OAC rule 3745-21-09(DD)(16)	Equivalent requirements
OAC rule 3745-21-09(DD)(17)	Exemptions
OAC rule 3745-21-09(DD), Appendix A	List of organic chemicals for which paragraph (DD) of Rule 3745-21-09 is applicable

i. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b) through (d)	When do I have to comply with this subpart?
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. * Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]

63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for establishing federally enforceable requirements which limit PTE for NOx [See b)(2)b.i.]:

a. The permittee shall employ a flare during all emission unit start-up periods when start-up venting is taking place; and

b. Start-up operations, when start-up venting is taking place, for the urea synthesis plant is limited by the following:

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$$\sum_{M=1} \sum_{n} NOx_n \leq 0.75$$

where:

M = the increment of the rolling 12-month period;

n = individual startup event during the period;

NOx_n = calculated emissions of nitrogen oxide in tons;

c. To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, start-up operations, when start-up venting is taking place, for the urea synthesis plant is limited by the following:

Allowable Operation Limitations

MONTH(S)	$\sum_{n} NOx_n \leq$
1-1	0.15
1-2	0.30
1-3	0.45
1-4	0.60
1-12	0.75

After the first 12 calendar months of operation under the provisions of this permit, compliance with the allowable operation limitations shall be based upon a rolling 12-month summation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is being started up when start-up venting is taking place and when the weather conditions allow, for any visible particulate emissions from the flare 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 visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

(2) The permittee shall collect and record the following information each month:

a. Time period for each startup operation when start-up venting is taking place;

b. The calculated NOx emissions, in tons, for each startup operation when start-up venting is taking place;

c. The total NOx emission rate, in tons, from all startup operations when start-up venting is taking place [summation of d)(2)b.];

d. For the first 12 calendar months of operation under the provisions of this permit, the cumulative monthly NOx emissions, in tons; and

e. After the first 12 months of operation under the provisions of this permit, the rolling 12-month NOx emissions, in tons.

(3) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(4) The permittee shall comply with the applicable monitoring and record keeping requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(2)	Leak detection and repair program
OAC rule 3745-21-09(DD)(12)	Alternative monitoring schedule for valves based on a skip period
OAC rule 3745-21-09(DD)(13)	Alternative monitoring standard for valves based on the allowable percentage of valves leaking
OAC rule 3745-21-09(DD)(14)	Record keeping

(5) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).

63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(6) The permittee shall maintain records showing that emissions were vented to the flare during all emissions unit start-up periods when start-up venting is taking place.

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible PE were observed from the flare serving this emissions unit when start-up venting is taking place; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(2) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(1)b.; and

b. all exceedances of the allowable operational limitations for the first 12 months of operation as specified in c)(1)c;

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(3) The permittee shall comply with the applicable reporting requirements under OAC rule 3745-21-09(DD), including the following section:

OAC rule 3745-21-09(DD)(15)	Reporting

(4) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* * the company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

(5) If emissions were not vented to the flare during all emissions unit start-up periods when start-up venting is taking place, the permittee shall notify the Ohio EPA, Northwest District Office within 30 days of such occurrence. The notification shall include calculations that show the emissions of any criteria pollutants from the startup event(s), and if necessary, submit a PTI modification application.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

187.5 lbs of NOx/hr and 0.75 ton of NOx/yr during emissions unit start-up periods when start-up venting is taking place (from the flare)

Applicable Compliance Method:

The hourly emission limitation was developed by using a flare manufacturer emission factor of 0.005 lb NOx/lb of ammonia introduced to the flare, multiplied by the maximum of 37,500 lbs of ammonia/hr = 187.5 lbs of NOx/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 7of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation is based on a maximum annual-average rate of NOx emissions (based on maximum annual-average rate of ammonia introduced to the flare of 7,500 lb of ammonia/hr) of 37.50 lbs of NOx/hr during emissions unit start-ups when start-up venting is taking place multiplied by a maximum of 40 hrs/yr of start-ups, then divided by 2,000 lbs/ton.

The emission limitations during start-up periods when start-up venting is taking place are based on PCS Engineering staff system knowledge and a detailed review of operations history. Compliance shall be demonstrated by the recordkeeping requirements in d)(2).

b. Emission Limitation:

Visible PE from the flare shall not exceed 5% opacity, as a 6-minute average during emissions unit start-up periods when start-up venting is taking place

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 9 in Appendix A of 40 CFR, Part 60.

c. Emission Limitations:

2.85 lbs of VOC/hr and 12.50 tons of VOC/yr during normal production mode of operation (from process equipment, not flare)

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit during normal production mode of operation. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr

emission limitation, compliance with the annual emission limitation shall also be demonstrated.

g) Miscellaneous Requirements

(1) None.

11. P563, Urea Plant - Reactor Feed

Operations, Property and/or Equipment Description:

Urea Plant - Reactor Feed Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.36 lb of volatile organic compounds (VOC)/hr and 1.58 tons of VOC/yr See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)c. and b)(2)d.
c.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)e.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1)
e.	OAC rule 3745-21-09(DD)	See b)(2)f., d)(2) and e)(1)
f.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440,this emissions unit is an existingaffected source consisting ofSundyne and Lawrence carbamate charge and booster pumps;which is partof a miscellaneous organic chemicalmanufacturing process unit at anexisting chemical manufacturingfacility subject to the emissionlimitations/control measuresspecified in this section.	See b)(2)g., d)(3), and e)(2)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., for details regarding the PTE.

b. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 0.36 lb of VOC/hr and 1.58 tons of VOC/yr

c. BAT requirements for VOC emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

d. The permittee has satisfied the BAT requirements for VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions since the potential to emit is less than 10 tons per year.

f. The permittee shall comply with the applicable requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(1)	Compliance requirements
OAC rule 3745-21-09(DD)(3)	Compressors
OAC rule 3745-21-09(DD)(4)	Pressure relief devices in gas/vapor service
OAC rule 3745-21-09(DD)(5)	Sampling connection systems
OAC rule 3745-21-09(DD)(6)	Open-ended valves or lines

OAC rule 3745-21-09(DD)(7)	Equipment designated for no detectable emissions
OAC rule 3745-21-09(DD)(8)	Barrier fluid systems and sensors for pumps and compressors
OAC rule 3745-21-09(DD)(9)	Closed vent systems
OAC rule 3745-21-09(DD)(10)	Control equipment
OAC rule 3745-21-09(DD)(11)	Delay of repair
OAC rule 3745-21-09(DD)(16)	Equivalent requirements
OAC rule 3745-21-09(DD)(17)	Exemptions
OAC rule 3745-21-09(DD), Appendix A	List of organic chemicals for which paragraph (DD) of Rule 3745-21-09 is applicable

g. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b) through (d)	When do I have to comply with this subpart?
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. * Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?

63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter

3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(2) The permittee shall comply with the applicable monitoring and record keeping requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(2)	Leak detection and repair program
OAC rule 3745-21-09(DD)(12)	Alternative monitoring schedule for valves based on a skip period
OAC rule 3745-21-09(DD)(13)	Alternative monitoring standard for valves based on the allowable percentage of valves leaking
OAC rule 3745-21-09(DD)(14)	Record keeping

(3) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

e) Reporting Requirements

(1) The permittee shall comply with the applicable reporting requirements under OAC rule 3745-21-09(DD), including the following section:

OAC rule 3745-21-09(DD)(15)	Reporting

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* * the company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

0.36 lb of VOC/hr and 1.58 tons of VOC/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of

40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

g) Miscellaneous Requirements

(1) None.

12. P564, Urea Plant - UTI Hotwell

Operations, Property and/or Equipment Description:

Urea Plant - UTI Hotwell Section with Scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)f. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.02 lb of particulate emissions/ particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter (PE/PM_{10}/$PM_{2.5}$)/hr and 0.09 ton of PE/PM_{10}/$PM_{2.5}$/yr Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average. 0.69 lb of carbon monoxide (CO)/hr and 3.01 tons of CO/yr 2.06 lbs of volatile organic compounds (VOC)/hr and 9.01 tons of VOC/yr See b)(2)b. through b)(2)d., d)(1) and e)(1)
b.	OAC rule 3745-17-11(B)	See b)(2)e.
c.	OAC rule 3745-17-07(A)	See b)(2)f.
d.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)g. and b)(2)h.
e.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)i.
f.	ORC 3704.03(F) and OAC rule 3745-114	See d)(2)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440,this emissions unit is an existingaffected source consisting of a vapor condensing/recovery system;which is partof a miscellaneous organic chemicalmanufacturing process unit at anexisting chemical manufacturingfacility subject to the emissionlimitations/control measuresspecified in this section.	See b)(2)j., d)(3), and e)(2)

(2) Additional Terms and Conditions

a. The UTI Hotwell Scrubber associated with this emissions unit is integral to the process equipment as a product recovery device. Thus, there is no parametric monitoring necessary.

b. It is assumed that all PE are equivalent to both PM_{10} and $PM_{2.5}$.

c. The mass emission rate limitations in b)(1)a. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., c. and d., for details regarding the PTE.

d. This permit establishes the following federally enforceable emission limitations for the purpose of representing the potentials to emit of this emissions unit:

i. 0.02 lb of PE/PM_{10}/$PM_{2.5}$/hr and 0.09 ton of PE/PM_{10}/$PM_{2.5}$/yr;

ii. 0.69 lb of CO/hr and 3.01 tons of CO/yr; and

iii. 2.06 lbs of VOC/hr and 9.01 tons of VOC/yr.

e. The PE limitation specified by OAC 3745-17-11(B) is less stringent than the PE limitation specified pursuant to OAC rule 3745-31-05(D).

f. The visible emission limitation specified by OAC rule 3745-17-07(A) is equivalent to the visible emission limitation established pursuant to OAC rule 3745-31-05(D).

g. BAT requirements for PE/PM_{10}/$PM_{2.5}$, CO and VOC emissions under OAC rule 3745-31-05(A)(3), as effective 11/30/01 have been determined to be compliance

with the annual emission limitations for PE/PM_{10}/$PM_{2.5}$, CO and VOC as established pursuant to OAC rule 3745-31-05(D).

h. The permittee has satisfied the BAT requirements for PE/PM_{10}/$PM_{2.5}$, CO and VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

i. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PE/PM_{10}/$PM_{2.5}$, CO and VOC emissions since the potential to emit is less than 10 tons per year.

j. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b) through (d)	When do I have to comply with this subpart?
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. * Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions

63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is being operated and when the weather conditions allow, for any visible particulate emissions from the scrubber 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 visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

(2) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(3) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the scrubber stack serving this emissions unit; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* * the company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

0.02 lb of PE/PM_{10}/$PM_{2.5}$/hr and 0.09 ton of PE/PM_{10}/$PM_{2.5}$/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

b. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emissions limitation above in accordance with the methods and procedures specified in Method 9 in Appendix A of 40 CFR, Part 60.

c. Emission Limitations:

0.69 lb of CO/hr and 3.01 tons of CO/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

d. Emission Limitations:

2.06 lbs of VOC/hr and 9.01 tons of VOC/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable,of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

g) Miscellaneous Requirements

(1) None.

13. T622, Storage Tank

Operations, Property and/or Equipment Description:

Diesel Exhaust Fluid (DEF) Urea Water 50% Storage/Blend Tank with a capacity of 39,000 gallons

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-07(M)(3)(c)	See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)c.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1)

(2) Additional Terms and Conditions

a. This emissions unit is not subject to the requirements of the rule because it does not meet all of the conditions outlined in OAC rule 3745-21-07(M)(3)(a).

b. The VOC emissions from this emissions unit are negligible, and thus, it is not necessary to establish a VOC emission limitation.

The permittee has satisfied the BAT requirements for VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1,

2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions since the potential to emit is less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

8. T623, Storage Tank

Operations, Property and/or Equipment Description:

50% Urea Liquor Storage Tank with a capacity of 1,380,000 gallons

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-07(M)(3)(c)	See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/1/06	See b)(2)c.
d.	ORC 3704.03(F) and OAC rule 3745-114	See d)(1)

(2) Additional Terms and Conditions

a. This emissions unit is not subject to the requirements of the rule because it does not meet all of the conditions outlined in OAC rule 3745-21-07(M)(3)(a).

b. The VOC emissions from this emissions unit are negligible, and thus, it is not necessary to establish a VOC emission limitation.

The permittee has satisfied the BAT requirements for VOC emissions pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits and control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions since the potential to emit is less than 10 tons per year.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.