Permit to Construct

R13-3622

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:
TransGas Development Systems, LLC
Ammonia Production Facility
059-00102

____________________________
Laura M. Crowder
Director, Division of Air Quality

Issued: DRAFT
This permit will supersede and replace Permit R13-2791A issued on August 5, 2011.

Facility Location: Near Wharncliffe, Mingo County, West Virginia
Mailing Address: 630 First Avenue, New York, NY 10016-3799
Facility Description: Ammonia Production Facility
SIC/NAICS Code: 2873/325311
UTM Coordinates: 418.156 km Easting • 4,163.591 km Northing • Zone 17
Latitude/Longitude: 37.61577/-81.92736
Permit Type: Construction
Desc. of Change: Construction of six (6) identical 6,000 metric tons/day (MTPD) ammonia manufacturing plants on the site of the previously permitted (but not constructed) coal-to-gasoline facility (Permit Number R13-2791A).

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is not subject to 45CSR30.
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West Virginia Department of Environmental Protection  •  Division of Air Quality
## 1.0 Emission Units

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Emission Point ID</th>
<th>Emission Unit Description</th>
<th>Year Installed</th>
<th>Design Capacity</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S-X</td>
<td>2E-X</td>
<td>Feed Purification</td>
<td>2024</td>
<td>6,000 metric tons/day</td>
<td>Process Flare</td>
</tr>
<tr>
<td>2S-X</td>
<td>2E-X</td>
<td>Reformer Section</td>
<td>2024</td>
<td></td>
<td>(2C-X)</td>
</tr>
<tr>
<td>3S-X</td>
<td>2E-X</td>
<td>ATR Section</td>
<td>2024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4S-X</td>
<td>2E-X</td>
<td>CO Conversion Section</td>
<td>2024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5S-X</td>
<td>2E-X</td>
<td>Nitrogen Wash Unit</td>
<td>2024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6S-X</td>
<td>2E-X</td>
<td>CO₂ Removal Section</td>
<td>2024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7S-X</td>
<td>2E-X</td>
<td>Ammonia Loop</td>
<td>2024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8S-X</td>
<td>1E-X</td>
<td>Startup Steam Generator</td>
<td>2024</td>
<td>5.15 mmBtu/hr</td>
<td>SCR</td>
</tr>
<tr>
<td>9S-X</td>
<td>1E-X</td>
<td>Pre-Heater</td>
<td>2024</td>
<td>14.30 mmBtu/hr</td>
<td>(1C-X)</td>
</tr>
<tr>
<td>10S-X</td>
<td>1E-X</td>
<td>Super-Heater</td>
<td>2024</td>
<td>1,332.7 mmBtu/hr</td>
<td></td>
</tr>
<tr>
<td>11S-X</td>
<td>4E-X</td>
<td>Startup &amp; Emergency Generator</td>
<td>2024</td>
<td>1,451 horsepower</td>
<td>None</td>
</tr>
</tbody>
</table>

(1) The facility will be made up of up to six (6) identical production plants, each with the emission units as listed below. Individual plant emission unit and emission point identification numbers will be as given above with the designation of 1 - 6 as applicable where the “X” is located.

(2) The Process Flare is only utilized during startup/shutdown cycles and during steady-state plant operations there are no emissions from these units.

(3) These units vent to the SCR during both startup and steady-state operations.
2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAAA</td>
<td>Clean Air Act Amendments</td>
</tr>
<tr>
<td>CBI</td>
<td>Confidential Business Information</td>
</tr>
<tr>
<td>CEM</td>
<td>Continuous Emission Monitor</td>
</tr>
<tr>
<td>CES</td>
<td>Certified Emission Statement</td>
</tr>
<tr>
<td>C.F.R. or CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>C.S.R. or CSR</td>
<td>Codes of State Rules</td>
</tr>
<tr>
<td>DAQ</td>
<td>Division of Air Quality</td>
</tr>
<tr>
<td>DEP</td>
<td>Department of Environmental Protection</td>
</tr>
<tr>
<td>dscm</td>
<td>Dry Standard Cubic Meter</td>
</tr>
<tr>
<td>FOIA</td>
<td>Freedom of Information Act</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutant</td>
</tr>
<tr>
<td>HON</td>
<td>Hazardous Organic NESHAP</td>
</tr>
<tr>
<td>HP</td>
<td>Horsepower</td>
</tr>
<tr>
<td>lbs/hr</td>
<td>Pounds per Hour</td>
</tr>
<tr>
<td>LDAR</td>
<td>Leak Detection and Repair</td>
</tr>
<tr>
<td>M</td>
<td>Thousand</td>
</tr>
<tr>
<td>MACT</td>
<td>Maximum Achievable Control Technology</td>
</tr>
<tr>
<td>MDHI</td>
<td>Maximum Design Heat Input</td>
</tr>
<tr>
<td>MM</td>
<td>Million</td>
</tr>
<tr>
<td>MMBtu/hr or</td>
<td>Million British Thermal Units per Hour</td>
</tr>
<tr>
<td>mmbtu/hr</td>
<td>Million British Thermal Units per Hour</td>
</tr>
<tr>
<td>MMCF/hr or</td>
<td>Million Cubic Feet per Hour</td>
</tr>
<tr>
<td>mmcflhr</td>
<td>Million Cubic Feet per Hour</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NESHAPS</td>
<td>National Emissions Standards</td>
</tr>
<tr>
<td>NO₃</td>
<td>Nitrogen Oxides</td>
</tr>
<tr>
<td>NSPS</td>
<td>New Source Performance Standards</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate Matter</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Particulate Matter less than 10µm in diameter</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Particulate Matter less than 2.5µm in diameter</td>
</tr>
<tr>
<td>Ppb</td>
<td>Pounds per Batch</td>
</tr>
<tr>
<td>pph</td>
<td>Pounds per Hour</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per Million</td>
</tr>
<tr>
<td>Ppmv or ppmv</td>
<td>Parts per million by volume</td>
</tr>
<tr>
<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
</tr>
<tr>
<td>psi</td>
<td>Pounds per Square Inch</td>
</tr>
<tr>
<td>SIC</td>
<td>Standard Industrial Classification</td>
</tr>
<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SO₂</td>
<td>Sulfur Dioxide</td>
</tr>
<tr>
<td>TAP</td>
<td>Toxic Air Pollutant</td>
</tr>
<tr>
<td>TPY</td>
<td>Tons per Year</td>
</tr>
<tr>
<td>TRS</td>
<td>Total Reduced Sulfur</td>
</tr>
<tr>
<td>TSP</td>
<td>Total Suspended Particulate</td>
</tr>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>UTM</td>
<td>Universal Transverse Mercator</td>
</tr>
<tr>
<td>VEE</td>
<td>Visual Emissions Evaluation</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
<tr>
<td>VOL</td>
<td>Volatile Organic Liquids</td>
</tr>
</tbody>
</table>
2.3. **Authority**

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.*

2.4. **Term and Renewal**

2.4.1. This permit supersedes and replaces previously issued Permit R13-2791A. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. **Duty to Comply**

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3622, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; *[45CSR§§13-5.10 and 13-10.3]*

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. **Duty to Provide Information**

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. [Reserved]
2.13. **Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. **Suspension of Activities**

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. **Property Rights**

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. **Severability**

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. **Transferability**

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

2.18. **Notification Requirements**

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. **Credible Evidence**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.
3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. Open burning. The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.

[45CSR§6-3.1.]

3.1.2. Open burning exemptions. The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.

[45CSR§6-3.2.]

3.1.3. Asbestos. The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.

[40CFR§61.145(b) and 45CSR§34]

3.1.4. Odor. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

[45CSR§4-3.1 State-Enforceable only.]

3.1.5. Permanent shutdown. A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.

[45CSR§13-10.5.]

3.1.6. Standby plan for reducing emissions. When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.

[45CSR§11-5.2.]

3.2. Monitoring Requirements

3.2.1. Emission Limit Averaging Time. Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.
3.3. Testing Requirements

3.3.1. Stack testing. As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary’s delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]
3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§4. State-Enforceable only.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:  
Director  
WVDEP  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-2345  
DAQ Compliance and Enforcement\(^1\): DEPAirQualityReports@wv.gov

If to the US EPA:  
Section Chief, USEPA, Region III  
Enforcement and Compliance  
Assurance Division  
Air Section (3ED21)  
Four Penn Center  
1600 John F Kennedy Blvd  
Philadelphia, PA 19103-2852

\(^1\) For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.
3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued or accessible/available electronically for review from the premises by company representatives when at the location, and shall be made available within a reasonable time for inspection by the Secretary or his/her duly authorized representative.

3.5.4.2. In accordance with 45CSR§22.4 – Air Quality Management Fee Program, newly permitted facilities will be sent an Application for a Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee should be submitted to this office at least 30 days prior to the date of initial startup to allow adequate time for processing. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.
4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in Table 1.0, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R13-3622, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

4.1.2. Production Limits
The permittee is authorized to construct and operate up to six (6) ammonia production plants at the site. The production of ammonia (CAS# 67-56-1) from the facility shall not exceed 6,000 metric tons-ammonia/plant/day or 2,190,000 tons/plant/year. The feedstock natural gas shall not exceed 70,992.5 mmscf/plant/year.

4.1.3. Plant Operating Modes
Each plant shall operate in one of three (3) modes: (1) Startup, (2) Shutdown, and (3) Steady-state. Each mode shall be defined in the following:

a. In startup mode, the plant is transitioning from fully shutdown to operating in steady-state mode, and the following conditions will occur:

(1) The Startup Steam Generator (8S-X) may operate while combusting ammonia;

(2) The Pre-Heater (9S-X) and Super-Heater (10S-X) may operate and combust natural gas, process gas, and hydrogen while transitioning to combusting only hydrogen during steady-state mode; and

(3) All excess process gas not combusted in the heaters shall be sent to the Process Flare (2C-X) for combustion. For the purposes of this permit, process gases do not include any process heater combustion exhaust, air, nitrogen, steam, or any other non-pollutant entrained gas stream.

b. In steady-state mode, the plant is producing ammonia product, and the following conditions will occur:

(1) The Pre-Heater (9S-X) and Super Heater (10S-X) may operate and combust only hydrogen and a trace amount of natural gas for flame detection purposes; and

(2) No process gases shall be released (or sent to the Process Flare for destruction).

c. In shutdown mode, the plant is transitioning from operating in steady-state mode to fully shutdown, and the following conditions will occur:

(1) The Pre-Heater (9S-X) and Super Heater (10S-X) cease operation; and

(2) All remaining process gases are sent to the Process Flare (2C-X) for combustion.
d. The permittee shall not exceed six (6) startup cycles and six (6) shutdown cycles on a facility-wide basis (from all plants) per rolling twelve (12) month period.

4.1.4. **Startup Steam Generators**
Each Startup Steam Generator, identified as 8S-X, shall meet the following requirements:

a. Each unit shall not exceed an MDHI of 5.15 mmBtu/hr, shall only be fired by ammonia, shall only operate during startup mode, and shall utilize Selective Catalytic Reduction (SCR) (1C-X) for control of NO\textsubscript{x} emissions; and

b. During one startup cycle, each unit shall not consume in excess of 155,327 lbs of ammonia.

4.1.5. **Process Heaters**
The Pre-Heaters and Super-Heaters, identified as 9S-X and 10S-X, respectively, shall meet the following requirements:

a. Each Pre-Heater shall not exceed an MDHI of 14.30 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO\textsubscript{x} emissions during all modes of operation; and

b. Each Super-Heater shall not exceed an MDHI of 1,332.7 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO\textsubscript{x} emissions during all modes of operation.

4.1.6. **SCRs**
The use of Selective Catalytic Reduction (SCR) shall be in accordance with the following:

a. The SCR shall be designed, operated and maintained according to good engineering practices and manufacturing recommendations so as to achieve, at a minimum, a vendor guaranteed (based on specific plant operating conditions) 99.00% control of NO\textsubscript{x} emissions vented to it;

b. The permittee shall maintain the proper temperature profile for NO\textsubscript{x} removal and shall operate the SCR in the optimal aqueous/anhydrous ammonia injection range as determined according to manufacturer recommendations or during the required performance testing; and

c. The emission limits from the SCR emission points, identified as 2E-X, shall not exceed the following:
### Table 4.1.6(c): SCR Main Plant Stack Emission Limits

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PPH (1)</th>
<th>TPY (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Startup</td>
<td>Steady-State</td>
</tr>
<tr>
<td>CO</td>
<td>19.82</td>
<td>0.02</td>
</tr>
<tr>
<td>NO_x</td>
<td>1.26</td>
<td>1.54</td>
</tr>
<tr>
<td>PM_{10}/PM_{10}/PM</td>
<td>9.23</td>
<td>0.02</td>
</tr>
<tr>
<td>SO_2</td>
<td>0.05</td>
<td>0.02</td>
</tr>
<tr>
<td>VOCs</td>
<td>6.68</td>
<td>0.02</td>
</tr>
<tr>
<td>HAPs</td>
<td>2.29</td>
<td>0.02</td>
</tr>
</tbody>
</table>

(1) Maximum per each individual SCR Main Plant Stack.
(2) Aggregate facility-wide limit from all SCR Main Plant Stacks during all operational modes.

#### 4.1.7. Process Flares

The Process Flares, identified as 2C-X, shall operate according to the following requirements:

a. The units shall be non-assisted, shall not exceed a design capacity of 216,273 scf/min, and shall be designed and operated according to the requirements specified in 40 CFR 60, Section §60.18;

b. Each unit shall be operated at all times when process gases are vented to it and shall not combust in excess of an 260 mm³ of process gases per each startup or 19.6 mm³ of process gases per each shutdown. Process gases sent to the flare shall be made up primarily of hydrogen, carbon monoxide, carbon dioxide, methane, nitrogen, and shall not exceed sulfur compounds in excess of 100 ppb (v/v);

c. Each unit shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a carbon monoxide and hydrocarbon combustion rate of 98.5%. The permittee shall operate and maintain the flare according to the manufacturer's specifications for operating and maintenance requirements to maintain the minimum guaranteed control efficiency listed under 4.1.7(b);

d. Each unit shall be operated with a flame present at all times when emissions are vented to it, as determined by the methods specified in 4.2.4(b) and the permittee shall monitor the flare in accordance with 4.2.4(b);

e. The emission limits from flaring during plant startups shall not exceed the following:
Table 4.1.7(e): Process Flare Startup Emission Limits

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PPH(1)</th>
<th>TPY(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>623.17</td>
<td>1.92</td>
</tr>
<tr>
<td>NOx</td>
<td>167.50</td>
<td>10.74</td>
</tr>
<tr>
<td>PM_{2.5}/PM_{10}/PM_{10}(3)</td>
<td>7.54</td>
<td>0.06</td>
</tr>
<tr>
<td>SO_{2}</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>VOCs</td>
<td>5.46</td>
<td>0.03</td>
</tr>
<tr>
<td>HAPs</td>
<td>1.87</td>
<td>0.01</td>
</tr>
</tbody>
</table>

1. Maximum per each individual process flare.
2. Aggregate plant-wide limit from all flares during all startup cycles.
3. Includes Condensables.

f. The emission limits from flaring during plant shutdowns shall not exceed the following:

Table 4.1.7(h): Process Flare Shutdown Emission Limits

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PPH(1)</th>
<th>TPY(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>9.93</td>
<td>0.03</td>
</tr>
<tr>
<td>NOx</td>
<td>178.72</td>
<td>0.53</td>
</tr>
</tbody>
</table>

1. Maximum per each individual process flare.
2. Aggregate plant-wide limit from all flares during all startup cycles.

g. 45CSR6

The flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

1. The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:

   \[ \text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)} \]

   Where, the factor, \( F \), is as indicated in Table I below:

   Table I: Factor, \( F \), for Determining Maximum Allowable Particulate Emissions

<table>
<thead>
<tr>
<th>Incinerator Capacity</th>
<th>Factor ( F )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Less than 15,000 lbs/hr</td>
<td>5.43</td>
</tr>
<tr>
<td>B. 15,000 lbs/hr or greater</td>
<td>2.72</td>
</tr>
</tbody>
</table>
   [45CSR§6-4.1]

2. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR6 §4.3]
(3) The provisions of subsection 4.3 shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.

[45CSR6 §4.4]

(4) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.

[45CSR6 §4.5]

(5) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR6 §4.6]

(6) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

[45CSR6 §8.2]

4.1.8. **Emergency Generators**

The Startup & Emergency Generators, identified as 11S-X, shall meet the following requirements:

a. Each unit shall be a Cummins Model C1000N6B, shall not exceed 1,451 hp, shall be fired only with natural gas, and shall not operate in excess of 100 hours per year during times not defined as emergencies;

b. The maximum emissions from each Emergency Generator shall not exceed the limits given in the following table:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PPH</th>
<th>TPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>5.11</td>
<td>0.26</td>
</tr>
<tr>
<td>NOx</td>
<td>3.20</td>
<td>0.16</td>
</tr>
<tr>
<td>PM2.5/PM10/PM10(1)</td>
<td>0.48</td>
<td>0.02</td>
</tr>
<tr>
<td>SO2</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>VOCs</td>
<td>1.18</td>
<td>0.06</td>
</tr>
<tr>
<td>HAPs</td>
<td>0.78</td>
<td>0.04</td>
</tr>
</tbody>
</table>

(1) Includes condensables.

c. **40 CFR 60, Subpart JJJJ**

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

[40 CFR §60.4233(e)]
Table 1 to Subpart JJJJ of Part 60—NO\textsubscript{X}, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

<table>
<thead>
<tr>
<th>Engine type and fuel</th>
<th>Maximum engine power</th>
<th>Manufacture date</th>
<th>Emission standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500=HP&lt;1,350)</td>
<td>HP=500</td>
<td>7/1/2010</td>
<td>g/HP-hr ppmvd at 15% O\textsubscript{2}</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NO\textsubscript{X}</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
</tbody>
</table>

(a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O\textsubscript{2}.

(d) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[40 CFR60, Subpart JJJJ, Table 1]

d. 40 CFR 63, Subpart ZZZZ
An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart III, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[40 CFR §63.6590(c)]

4.1.9. Fugitive Emissions
The permittee shall mitigate the release of fugitive emissions according to the following requirements:

a. The permittee shall, within 180 days of facility startup, submit a modification or Class II Administrative Update, as applicable pursuant 45CSR13, to revise the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed in Attachment N of Permit Application R13-3622 or any amendments or revisions submitted thereto if the as-built number of components results in calculated VOC or HAP emissions in excess of those given under Attachment N; and

b. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be replaced.

4.1.10. Closed Vent Requirements
The permittee shall meet the following requirements below for all piping systems designed to evacuate process gases to the Process Flares or Process Heaters for combustion:

a. The permittee shall design and operate the closed vent system as determined following the procedures under 40 CFR 60, Subpart VVa for ongoing compliance;

b. The permittee shall meet the requirements specified in (1) and (2) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process;
(1) Except as provided in paragraph (2) of this section, you must comply with either paragraph (i) or (ii) of this section for each bypass device.

(i) You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere; or

(ii) You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

(2) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section. Pressure relief valves used to protect fluid tanks from overpressure are not subject to this section.

4.1.11. Vendor Guarantees
The permittee shall, at the time of initial startup, maintain on-site and have readily available to be made available to the Director or his/her representative upon request, a copy of the all current vendor guarantees relevant to the air emissions associated with the facility. This includes information relating to the performance of both emission units and control devices.

4.1.12. Applicable Rules
The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR6 and 40 CFR 60, Subpart JJJJ. Any final revisions made to the above rules will, where applicable, supercede those specifically cited in this permit.

4.1.13. Operation and Maintenance of Air Pollution Control Equipment
The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements

4.2.1. Maximum Design Capacity Compliance
Compliance with the maximum design capacity limitations as given under Table 1.0 and Section 4.1. shall be based, when available, on a clear and visible boilerplate rating or on product literature, manufacturer’s data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate (or bottlenecked to that capacity by another unit’s design capacity) that does not exceed the specified value under Table 1.0 and Section 4.1. Where the above is not available, if requested by the Director, compliance shall be based on a reasonable demonstration that the listed quantity represents the maximum capacity of the unit/process under the plants normal operational configuration.
4.2.2. **Maximum Design Heat Input Compliance**
Compliance with the various combustion unit MDHI limitations as given under Table 1.0 and Section 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer’s data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under Table 1.0 and Section 4.1.

4.2.3. **Quantities Monitored/Recorded**
To determine continuous compliance with maximum production, throughputs, and other limits given under in 4.1 of the permit, the permittee shall monitor and record the following:

<table>
<thead>
<tr>
<th>Table 4.2.3: Facility Quantities Monitored/Recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity Monitored/Recorded</strong></td>
</tr>
<tr>
<td>Natural Gas Feedstock</td>
</tr>
<tr>
<td>Ammonia Production</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Startups</td>
</tr>
<tr>
<td>Shutdowns</td>
</tr>
<tr>
<td>Process Gas Combusted</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Non-Emergency Operation</td>
</tr>
</tbody>
</table>

(1) Compliance with the daily plant ammonia production limit shall be determined by dividing the monthly production rate by the hours of operation for that same month and then multiplying the result by 24.

4.2.4. **Process Flares**
The permittee shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the flare:

a. To demonstrate compliance with 4.1.7(b), the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the minimum control efficiency;

b. To demonstrate compliance with the flame requirements of 4.1.7(b) and (d), the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out. The permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and vapors were vented to the device. The permittee shall maintain records of any inspections made pursuant to 4.2.4(b);

c. For any absence of pilot flame, or other indication of smoking or improper equipment operation, the permittee must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, the permittee must: (1) Check the air vent for
obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable.

(2) Check for liquid reaching the flare;

d. Any bypass event of a flare must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned; and

e. Any time the flare is not operating when emissions are vented to it, shall be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days of the discovery.

4.2.5. Flare Visible Emissions Compliance

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

a. Compliance with the visible emission requirements for the process flares given under 4.2.7(g)(2) and (3) shall be in accordance with the following: Visible emission checks shall be conducted during each plant startup. These checks shall be performed for a sufficient time interval, but no less than a 6-minute interval, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions;

(2) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 which may include online web-based training as supplied by a Method 9 training company;

(3) If visible emissions are determined to be present at a source(s) during the testing required under 4.2.(a)(2), the permittee shall, as soon as practicable, attempt to diagnose and correct any issue that is causing the presence of visible emissions;

(4) If the cause of the visible emissions are not correctable within a reasonable time (not to exceed three (3) hours), the permittee shall perform a Method 9 reading as soon as practicable to confirm that visible emissions are within the applicable limits of this permit;

(5) If, at any time, plant personnel observe any sustained visible emissions (lasting longer than 6 minutes) from the process flare, the permittee shall conduct a Method 22 test on that emission point pursuant to the requirements of this section.

c. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.5 documenting the date and time of each visible emission check, the emission point or equipment/
source identification number, the name or means of identification of the observer, the results of
the check(s), whether the visible emissions are normal for the process, and, if applicable, all
corrective measures taken or planned. The permittee shall also record the general weather
conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission
check(s). Should a visible emission observation be required to be performed per the
requirements specified in Method 9, the data records of each observation shall be maintained
per the requirements of Method 9. For an emission unit out of service during the evaluation,
the record of observation may note "out of service" (O/S) or equivalent; and

d. Any deviation of the allowable visible emission requirement for the process flare is discovered
during observation using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing
to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the
occurrence and shall include, at a minimum, the following information: the results of the
visible determination of opacity of emissions, the cause or suspected cause of the violation(s),
and any corrective measures taken or planned.

4.2.6. **Closed Vent Requirements**

To demonstrate compliance with the closed vent system requirements of 4.1.13, the permittee shall:

a. **Initial requirements.** The permittee shall follow the procedures in 40 CFR 60, Subpart VVa.
The initial inspection shall include the bypass inspection, conducted according to paragraph (b)
of this section.

b. **Bypass inspection.** Visually inspect the bypass valve during the initial inspection for the
presence of the car seal or lock-and-key type configuration to verify that the valve is maintained
in the non-diverting position to ensure that the vent stream is not diverted through the bypass
device. If an alternative method is used, conduct the inspection of the bypass as described in the
operating procedures.

c. **Unsafe to inspect requirements.** You may designate any parts of the closed vent system as
unsafe to inspect if the requirements in paragraphs (1) and (2) of this section are met. Unsafe
to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this
section.

(1) You determine that the equipment is unsafe to inspect because inspecting personnel would
be exposed to an imminent or potential danger as a consequence of complying with the
requirements.

(2) You have a written plan that requires inspection of the equipment as frequently as
practicable during safe-to-inspect times.

d. To demonstrate compliance with the closed vent monitoring requirements given under
paragraphs (a) through (c) above, the following records shall be maintained:

(1) The initial compliance requirements;

(2) If you are subject to the bypass requirements, the following records shall also be maintained:

   (i) Each inspection or each time the key is checked out or a record each time the alarm is
       sounded;
(ii) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.

(3) Any part of the system that has been designated as "unsafe to inspect" in accordance with 4.2.3(c).

4.3. Performance Testing Requirements

4.3.1. General Performance Testing
At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

4.3.2. Specific Emissions Point Performance Testing
Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:

<table>
<thead>
<tr>
<th>Emission Unit(s)</th>
<th>Emission Point(s)</th>
<th>Pollutants</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>8S-X</td>
<td>1E-X(^1)</td>
<td>NO(_x) (Startup)</td>
<td>PPH (Table 4.1.6(c))(^2)</td>
</tr>
<tr>
<td>9S-X</td>
<td></td>
<td>NO(_x) (Steady-State)</td>
<td></td>
</tr>
<tr>
<td>10S-X</td>
<td></td>
<td>CO (Startup)</td>
<td></td>
</tr>
</tbody>
</table>

(1) This performance test is required for each of the plants that come on line. Thereafter, each plant is subject to the testing schedule given under 4.3.3. below.
(2) Steady-state testing shall occur at the maximum production rate or the results of the test shall be scaled up to represent the plant operating at the maximum production rate in order to show compliance with the PPH limits.

4.3.3. Performance Testing Schedule
With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Results</th>
<th>Retesting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Baseline</td>
<td>&lt;50% of the emission limit</td>
<td>Once/5 years</td>
</tr>
<tr>
<td>Initial Baseline</td>
<td>between 50% and 80% of the emission limit</td>
<td>Once/3 years</td>
</tr>
<tr>
<td>Initial Baseline</td>
<td>&gt;80% of the emission limit</td>
<td>Annual</td>
</tr>
<tr>
<td>Annual</td>
<td>after three successive tests indicate a mass emission rate &lt;50% of the emission limit</td>
<td>Once/5 years</td>
</tr>
<tr>
<td>Test</td>
<td>Test Results</td>
<td>Retesting Frequency</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Annual</td>
<td>after two successive tests indicate a mass emission rate &lt;80% of the emission limit</td>
<td>Once/3 years</td>
</tr>
<tr>
<td>Annual</td>
<td>any tests indicates a mass emission rate &gt;80% of the emission limit</td>
<td>Annual</td>
</tr>
<tr>
<td>Once/2 years</td>
<td>After two successive tests indicate mass emission rates &lt;50% of the emission limit</td>
<td>Once/5 years</td>
</tr>
<tr>
<td>Once/2 years</td>
<td>any tests indicates a mass emission rate &lt;80% of the emission limit</td>
<td>Once/3 years</td>
</tr>
<tr>
<td>Once/2 years</td>
<td>any tests indicates a mass emission rate &gt;80% of the emission limit</td>
<td>Annual</td>
</tr>
<tr>
<td>Once/3 years</td>
<td>any tests indicates a mass emission rate &lt;50% of the emission limit</td>
<td>Once/5 years</td>
</tr>
<tr>
<td>Once/3 years</td>
<td>any test indicates mass emission rates between 50% and 80% of the emission limit</td>
<td>Once/3 years</td>
</tr>
<tr>
<td>Once/3 years</td>
<td>any test indicates a mass emission rate &gt;80% of the emission limit</td>
<td>Annual</td>
</tr>
</tbody>
</table>

### 4.3.3. Process Gas Testing

In order to show compliance with 4.1.10(e), during each initial plant startup, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), a test on the process gas immediately prior to the Process Flare to confirm the assumptions used to determine the emissions in Attachment N of permit application R13-3622 (including a sulfur concentration at or below than 100 ppb (v/v)). Any additional testing, after the initial performance test, will be at the discretion of the Secretary pursuant to 4.3.1. above.

### 4.4. Additional Recordkeeping Requirements

#### 4.4.1. Record of Monitoring

The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

#### 4.4.2. Record of Maintenance of Air Pollution Control Equipment

For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
4.4.3. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.5. Additional Reporting Requirements

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. Biannual Monitoring Information Submission

The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and

b. Certification of Compliance

The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.
CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached __________________________________________, representing the period beginning ______________________________ and ending ______________________________, and any supporting documents appended hereto, is true, accurate, and complete.

Signature1

(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title ___________________________________________ _______________________________

(please print or type) Name Title

Telephone No. ___________________________________ Fax No. ___________________________________

1 This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

   (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

   (ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.