STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

CF Industries Nitrogen LLC
4608 Highway 49 East
Yazoo City, Mississippi
Yazoo County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) (i.e., the "Federal Act") and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: September 4, 2025

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Becky Simonson

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: August 31, 2030 **Permit No.: 3020-00010**

2269 PER20240002

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)

1.2 It shall not be a defense for a 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 conditions of this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)

1.3 The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)

1.4 Prior to its expiration, this permit may be reopened in accordance with the following provisions:.

(a) This permit shall be reopened and revised under any of the following circumstances:

(1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of three (3) or more years. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.

(2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the Department of Environmental Quality (DEQ) at least thirty (30) days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G.)

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information claimed to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)

1.6 The permit does not convey any property rights of any sort, or any exclusive privilege.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)

1.7 The provisions of this permit are severable. If any provision of this permit (or the application of any provision of this permit to any circumstances) is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof (or their application to other persons or sets of circumstances) shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)

1.8 The permittee shall pay to the DEQ an annual fee based on a fee schedule established by the Mississippi Commission on Environmental Quality (i.e., the "Commission"). The fee schedule shall be set each year by order of the Commission in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

(a) A portion of the fee shall be based on the permittee's annual quantity of emissions. The permittee shall elect for "actual emissions" or "allowable emissions" to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions.

(i) "Actual emissions" shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct

measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission.

(ii) "Allowable emissions" are those emissions limited by this permit as well as those emissions not expressly limited by this permit but otherwise allowed by this permit, as represented in the Title V application.

(iii) Not withstanding paragraphs (i) and (ii), a minimum annual fee shall be assessed in accordance with the fee schedule established by the Commission when calculating this portion of the fee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(1).)

(b) A portion of the fee shall be based on the complexity of this permit, as determined by the number of air regulations applicable to the permittee on the date of the fee calculation in accordance with the fee schedule established by the Commission. Only air regulations required to be addressed by this permit may be included in the annual fee schedule.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(2).)

(c) By July 1 of each year, the permittee shall submit a completed annual fee reporting form to the DEQ accompanied by all necessary calculations and supporting information to verify actual emissions. If the annual fee reporting form is not filled out completely and accurately or certified in accordance with Regulation 11 Miss. Admin. Code Pt. 2, R. 6.2.E., "allowable emissions" or other information necessary to determine the appropriate annual fee shall be used in the fee calculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(c).)

(d) If the Commission determines that there is not sufficient information available to the permittee to accurately complete and submit the annual fee reporting form by July 1, but such information becomes available and is submitted to the DEQ after July 1, the fee calculation and assessment may be altered according to the annual fee schedule. No fee actually paid to the DEQ shall be refunded due to a change in the fee calculation.

If a fee is recalculated such that the amount assessed for an annual period is reduced and the permittee has already paid all or a portion of the fee, the revised fee assessment may not be reduced to an amount less than what the permittee has already paid regardless of the results of the recalculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(d).)

(e) The fee shall be due September 1 of each year. However, the permittee may elect a quarterly payment method of four (4) equal payments with the payments due September 1, December 1, March 1 and June 1. The permittee shall notify the DEQ that the quarterly payment method will be used by September 1.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1).)

(f) If at any time within the year the Commission determines that the information submitted by the permittee is insufficient or incorrect, the DEQ will notify the permittee of the deficiencies and the adjusted fee schedule. Past due fees as a result of the adjusted fee assessment will be due at the time of the next scheduled quarterly payment.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(b).)

(g) If an annual fee is not paid within thirty (30) days after the due date, a penalty of ten (10) percent of the amount due shall at once accrue and be added thereto. If the fee is not paid in full (including any interest and penalty within sixty (60) days of the due date), the Permit Board may revoke the permit upon proper notice and hearing as required by law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(a).)

(h) If the permittee disagrees with the calculation or applicability of an annual fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)

1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)

1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a 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.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

1.11 The permittee shall allow the DEQ (or an authorized representative), upon the presentation of credentials and other documents as may be required by law, to perform the following:

(a) Enter upon the permittee's premises where a Title V 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 any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Federal Act, sample or monitor (at reasonable times) substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(2).)

1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(1).)

1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(2).)

1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance upon satisfying one of the following conditions:

(a) Such applicable requirements are included and are specifically identified in the permit; or

(b) The Permit Board, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the permittee and the permit includes such determination (or a concise summary thereof).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(1).)

1.15 Nothing in this permit shall alter or affect the following:

(a) The provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.

(d) The ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(2).)

1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required to register such a plan pursuant to Section 112(r) of the Federal Act.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)

1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one that is submitted at least six (6) months prior to the date of permit expiration.

If the permittee submits a timely and complete application for permit issuance (including for renewal), the failure to have a Title V permit is not a violation of the applicable regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.A(1)(c), R. 6.4.B., and 6.4.C(2).)

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (Ref.: Section 502(b)(10) of the Federal Act) if the following criteria are met:

(a) The changes are not modifications under any provision of Title I of the Federal Act;

(b) The changes do not exceed the emissions allowable under this permit;

(c) The permittee provides the Administrator and the Department with written notification in advance of the proposed changes [i.e., at least seven (7) days or such other time frame as provided in other regulations for emergencies] and the notification includes the following information:

(1) A brief description of the change(s),

(2) The date on which the change will occur,

(3) Any change in emissions, and

(4) Any permit term or condition that is no longer applicable as a result of the change;

(d) The permit shield shall not apply to any Section 502(b)(10) change.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an "Air Pollution Emergency Episode", the permittee will be required to operate in accordance with either the permittee's prepared "Emission Control Action Program(s)" or, in the absence of a prepared Emission Control Action Program, the appropriate requirements and "Emission Reduction Objectives" specified in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 3. – "Regulations for the Prevention of Air Pollution Emergency Episodes" – for the level of emergency declared and the permittee's source of air contamination.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

1.20 Except as otherwise provided herein, a modification of the permittee's facility may require a Permit to Construct in accordance with the provisions specified in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. – "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment" – and may require modification of this permit in accordance with Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6. – "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act."

"Modification" is defined as any physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) Routine maintenance, repair, and replacement;

(b) Use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the "Federal Energy Supply and Environmental Coordination Act of 1974" (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the "Federal Power Act";

(c) Use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) Use of an alternative fuel or raw material by a stationary source which:

(1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit

condition which was established after January 6, 1975, pursuant to Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.; or

(2) The source is approved to use under any permit issued under Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.;

(e) An increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. or Ch. 5.; or

(f) Any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C(15).)

1.21 An administrative permit amendment may be made by the Permit Board authorizing changes in ownership or operational control consistent with the following procedure:

(a) The Permit Board shall take action within sixty (60) days after receipt of a completed request for a permit transfer, unless a public hearing is scheduled. The Permit Board may incorporate such changes without providing notice to the public or affected State(s) provided that it designates any such permit revision as having been made pursuant to this paragraph.

(b) A permit transfer shall be approved upon satisfaction of the following:

(1) The applicant for transfer approval can demonstrate to the Permit Board it has the financial resources, operational expertise, and environmental compliance history over the last five (5) years to insure compliance with the terms and conditions of the permit to be transferred, except where this conflicts with State Law, and

(2) The Permit Board determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the DEQ.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4)(a) and (b).)

1.22 This permit is a Federally approved operating permit under Title V of the Federal Act. All terms and conditions in this permit, including any provisions designed to limit the permittee's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B(1).)

1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance.

Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or an Emergency Air Pollution Episode Alert imposed by the Executive Director of DEQ; and must meet the following buffer zones:

(a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within fifty (50) yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private airfields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:

(i) An upset occurred and that the source can identify the cause(s) of the upset;

(ii) The source was at the time being properly operated;

(iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

(iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;

(v) That as soon as practicable but no later than twenty-four (24) hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.

(2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third-party enforcement actions.

(b) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during start-ups and shutdowns unless source specific emission limitations or work practice standards for start-ups and shutdowns are defined by an applicable rule, regulation, or permit.

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in Regulation 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

(3) Where an upset as defined in Rule 1.2 occurs during start-up or shutdown, see the "Upset" requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements specified in 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos), as adopted by reference in Regulation 11 Miss Admin.

Code Pt. 2, R. 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.8.)

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AB-001	130 MMBtu/hr natural gas-fired Wickes Boiler (Auxiliary Boiler No. 1) – forced draft steam generator equipped with an oxygen trim system.
AB-002	184 MMBtu/hr natural gas-fired Combustion Engineering Boiler (Auxiliary Boiler No. 2) – forced draft steam generator equipped with an oxygen trim system.
AB-003	328 MMBtu/hr natural gas-fired General Electric (Model LM-2500) combustion turbine/generator set with a supplementary fired Coen burner heat recovery steam generator (Cogeneration Facility).
CO_2 Compression and Dehydration Process Unit (CO_2 C&D Process Unit) – This unit captures and sequesters CO_2 from the No. 3 Ammonia Plant (Emission Point AD-001) and includes a motor-driven CO_2 compressor, a triethylene glycol (TEG) drying package unit, and a cooling tower. With exception of Emission Point AC-001, all other emission sources qualify as insignificant activities. [Proposed]	
AC-001 [Proposed]	Low Pressure Blow-off Stage 4 CO_2 Vent for Startups/Shutdowns (SU/SD)
AC-002 [Proposed]	High Pressure Blow-off Stage 8 CO_2 Vent for Startups/Shutdowns (SU/SD)
AC-003 [Proposed]	Process CO_2 Vent for Startups/Shutdowns (SU/SD)
No. 3 (Kellogg) Ammonia Plant – M.W. Kellogg single train anhydrous ammonia manufacturing facility. Process is based on the catalytic steam reforming of natural gas with subsequent conversion to ammonia over a magnetite catalyst. Rated capacity of 72.37 tons/hr of ammonia production. (Associated Emission Points: AD-001, AK-007, AK-010, AB-001, AB-002, AB-003, AB-004, AD-003, AD-004, AD-005, AW-015, AW-017, AW-018, AW-019, AW-020, AW-021, and AW-006)	
AD-001	Carbon Dioxide (CO_2) Regenerator Vent, routed to the atmosphere or to the CO_2 Compression & Dehydration Process Unit.
AD-003	38 MMBtu/hr natural gas-fired Kellogg Startup Heater (Zeeco Burner)
AD-004	Process Ammonia Flare No. 3 (Flare Industries) equipped with a 1.08 MMBtu/hr natural gas-fired burner
AD-005	1,030 MMBtu/hr natural gas/process purge gas-fired Primary Reformer equipped with ultra-low NO_x burners on Primary and Tunnel Burners, Superheat Burners, and Auxiliary Boiler Burner (Kellogg EF1030)
AD-006	Ammonia Flare No. 1 (Tornado Combustion Technologies) equipped with a 12.24 MMBtu/hr natural gas-fired burner
AD-007	Ammonia Flare No. 2 (Flare Technologies) equipped with a 0.87 MMBtu/hr natural gas-fired burner
AD-008	Ammonia Flare controlling emissions of high-pressure purge (HPP) and low-pressure purge (LPP) gases from the Ammonia Plant, equipped with a 12.93 MMBtu/hr natural gas-fired igniter

Emission Point	Description
Nitric Acid Plants – Catalytic Ammonia Oxidation Process (AOP) with water absorption to produce aqueous nitric acid.	
AE-003	No. 6 Nitric Acid Plant with emissions controlled by an extended absorption train (two towers in series) and a dual-bed selective catalytic reduction (SCR) reactor with ammonia injection grids, ammonia flow control system, and high-performance ammonia mixing technology. Rated capacity of 18.75 tons/hr of acid production.
AE-005	No. 8 Nitric Acid Plant with emissions controlled by air bleaching and single-bed SCR reactor with ammonia injection grids, ammonia flow control system, and high-performance ammonia mixing technology. Rated capacity of 47.92 tons/hr of acid production.
AE-006	No. 9 Nitric Acid Plant with emissions controlled by an extended absorption train (two towers in series) and a dual-bed SCR reactor with ammonia injection grids, ammonia flow control system, and high-performance ammonia mixing technology. Rated capacity of 29.79 tons/hr of acid production.
AE-007	No. 10 Nitric Acid Plant with emissions controlled by an extended absorption train (two towers in series) and a dual-bed SCR reactor with ammonia injection grids, ammonia flow control system, and high-performance ammonia mixing technology. Rated capacity of 29.79 tons/hr of acid production.
Ammonia Nitrate Fertilizer (ANF) Plant – Neutralization of nitric acid and ammonia (anhydrous and urea off-gas) to produce aqueous ammonium nitrate (AN). The aqueous product is subsequently used to produce high-density ammonium nitrate (HDAN) prills, low-density ammonium nitrate (LDAN) prills, and/or an aqueous blend of ammonium nitrate and urea. Rated capacity of 2,750 tons/day HDAN synthesis or 1,500 tons/day of LDAN.	
AF-001	Neutralizer Condenser Scrubber which condenses the off-gases from the five ammonium nitrate neutralizers and the magnesium nitrate/ammonium nitrate synthesis process.
AF-002	No. 2 Prill Tower Scrubber which controls emissions from the No. 2 Prill Tower, No. 2 Hi-D Evaporator, No. 3 Evaporator, and the No. 4 Evaporator.
AF-003	No. 3 Prill Tower Scrubber which controls emissions from the No. 3 Prill Tower and No. 1 Hi-D Evaporator.
AF-004	Combined stack for emissions from the following processes: No. 4 ANF Finishing Train Pre-Cooler equipped with a Fly Ash Arrestor Scrubber; No. 4 ANF Finishing Train Cooler equipped with a Fly Ash Arrestor scrubber; No. 4 ANF Finishing Train Pre-Dryer controlled by the Fly Ash Arrestor scrubber following the No. 4 Finishing Train Pre-Cooler; and, No. 4 ANF Finishing Train Dryer controlled by the Fly Ash Arrestor scrubber following the No. 4 Finishing Train Cooler.
AF-005	No. 5 IGAN Plant. No. 5 Finishing Train Wet Scrubber controlling emissions from the No. 5 Finishing Train Pre-Dryer Drum, No. 5 Finishing Train Fluid Bed Cooler, and No. 5 Finishing Train Dryer Drum.
Reciprocating Internal Combustion Engines and Other Miscellaneous Sources	
AB-004	Emergency Generator - 1.25 MMBtu/hr (190 HP) natural gas-fired, spark ignition, 4-stroke lean-burn Waukesha emergency generator (Model Yr. 1996).
AJ-004	No. 1 Firewater Pump Engine - 1.18 MMBtu/hr (208 HP) diesel-fired, compression ignition, Cummins engine (Model Yr. 1997 with displacement <10 L/cylinder).
AJ-005	No. 2 Firewater Pump Engine - 1.18 MMBtu/hr (208 HP) diesel-fired, compression ignition, Cummins engine (Model Yr. 1997 with displacement <10 L/cylinder).
AK-003	No. 4 Water Well Pump - 1.08 MMBtu/hr (190 HP) diesel-fired, compression ignition, Caterpillar emergency engine (Model Yr. 1994 with displacement <10 L/cylinder).

Emission Point	Description
AK-004	No. 6 Water Well Diesel Engine – 1.08 MMBtu/hr (190 HP) diesel-fired, compression ignition Caterpillar emergency engine (Model Yr. 1994 with displacement < 10 L/cylinder).
AK-005	Storm Water Flood Pump Engine – 1.18 MMBtu/hr (209 HP) diesel-fired, compression ignition Scania Waukesha emergency engine (Model Yr. 1969 with displacement <10 L/cylinder).
AK-007	SP-6 Process Vent which is closed during normal operation but may vent process gas during startups and shutdowns. (No. 3 Ammonia Plant)
AK-009	PIC-4 Vent closed during normal operation but may vent process gas during startups and shutdowns.
AK-010	PIC-5 Vent which is closed during normal operation but may vent process gas during startups and shutdowns. (No. 3 Ammonia Plant)
AK-011	No. 17 Water Well Generator – 1.22 MMBtu/hr (480 HP) diesel-fired, compression ignition, Caterpillar emergency engine (Model Yr. 2011 with displacement <10 L/cylinder).
AK-012	IT Backup Emergency Generator – 0.13 MMBtu/hr (49 HP) natural gas-fired, spark ignition, 4-stroke rich burn Taylor Power Systems emergency engine (Model Yr. 2013).
AK-013	Technical Services Backup Emergency Generator - 0.063 MMBtu/hr (25 HP) natural gas-fired, spark ignition, 4-stroke rich burn Olympian emergency engine (Model Yr. 1998).
AW-006	Wash downs, AAP Slabs, and Fugitives – Raw gas blowdown is used once/week to wash down three pads in the Kellogg Plant. Methanol evaporates from this water.
AW-047	497,457-gallon Hilltop Nitric Acid Tank exhausted to a shared vent
	302,293-gallon Hilltop Nitric Acid Tank exhausted to a shared vent (under construction)
AW-065	Above-ground Gasoline Dispensing Tank – 5,000-gallon gasoline storage tank
AW-125	Port Gasoline Tank – 560-gallon gasoline storage tank
Cooling Towers	
AW-015	No. 3 Cooling Tower
AW-017	No. 4 Cooling Tower
AW-018	No. 7 Cooling Tower
AW-019	No. 8 Cooling Tower
AW-020	No. 9 Cooling Tower
AW-021	No. 10 Cooling Tower
Urea Plant – Anhydrous ammonia and carbon dioxide are reacted to produce aqueous urea solution which is blended to produce liquid fertilizer. Rated Capacity: 26.04 tons/hr (100% urea). There are no emission points associated with this plant because the plant does not emit any regulated pollutants.	

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. FACILITY-WIDE EMISSION LIMITATIONS & STANDARDS

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial, or waste disposal process, which exceeds forty (40) percent opacity subject to the exceptions provided in (a) and (b):

(a) Start-up operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per start-up in any one hour and not to exceed three (3) start-ups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed sixty (60) percent opacity and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Condition 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

3.A.3 The permittee shall not cause, permit, or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

(a) The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

(b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of Regulation 11 Miss. Admin. Code Pt. 2, Ch. 1, the Commission may order such corrected in a way that all air and gases or air and gas-borne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.C.)

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AB-001 AB-002 AD-003 AD-005	40 CFR 63, Subpart DDDDD NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63.7480, 63.7485, 63.7490(a)(1) and (d), 63.7499(l) and (o), 63.7500(c) and (e), 63.7565, and Table 10 to Subpart DDDDD	3.B.1	HAP	Applicability
	40 CFR 63.7500(a)(3) and (f), and 63.7505(a), Subpart DDDDD	3.B.2		Operating requirement
AD-003	40 CFR 63.7575, Subpart DDDDD	3.B.3	HAP	Annual capacity factor ≤ 10 percent
AB-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995	3.B.4	NO_x	71.5 lb/hr and 313.2 tpy
AB-002	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 16, 1999	3.B.5	Operating Restriction	Restrictions when operating concurrently with AB-001 and/or AB-003
AB-003	40 CFR 60, Subpart GG Standards of Performance for Stationary Gas Turbines 40 CFR 60.330, Subpart GG	3.B.6	NO_x, SO_2	Applicability
	40 CFR 60.332(a), Subpart GG and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995	3.B.7	NO_x	263 ppmvd at 15% O_2, not to exceed 243.3 lb/hr and 1,066.3 tpy
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995	3.B.8	SO_2	9.1 lb/hr and 40 tpy
	40 CFR 60.333(b), Subpart GG	3.B.9	Fuel	≤ 0.8 percent sulfur by weight

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AB-003	40 CFR 63, Subpart YYYY NESHAP for Stationary Combustion Turbines 40 CFR 63.6080, 63.6085, and 63.6090(a)(1) and (b)(4), Subpart YYYY	3.B.10	HAP	Applicability
	40 CFR 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60.40c(a), Subpart Dc	3.B.11	PM SO_2	Applicability
AB-001 AB-002 AB-003	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.12	PM (filterable only)	$E = 0.8808*I^{-0.1667}$
AB-001 AB-002	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.13	SO_2	4.8 lb/MMBtu
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued December 15, 2006	3.B.14	Fuel	Natural gas only
No. 3 (Kellogg) Ammonia Plant				
AD-003 AD-005 AD-006 AD-008	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.12	PM (filterable only)	$E = 0.8808*I^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.13	SO_2	4.8 lb/MMBtu
AD-003	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued January 6, 2000	3.B.14	Fuel	Natural gas only
AD-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued January 6, 2000	3.B.15	Fuel	Natural gas only for pilot light. Flare burns off-gas (primarily ammonia) during a flaring event.
AD-004 AD-007	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.16	PM (filterable only)	0.6 lb/MMBtu
AD-005	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued December 15, 2006	3.B.17	Fuel	Natural gas and process purge gas only

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AD-005	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27, 2012, and modified September 16, 2016	3.B.18	NO_x	173.31 lb/hr and 759.10 tpy
		3.B.19	Ammonia Production	≤ 620,500 tons per year
		3.B.20	Heat Input Restriction	≤ 9,022,800 MMBtu per year
Nitric Acid Plants				
AE-003 AE-005 AE-006 AE-007	40 CFR Part 64 – Compliance Assurance Monitoring (CAM) 40 CFR 64.2(a), CAM	3.B.40	NO_x	CAM Applicability
AE-003	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued June 23, 2014 (Consent Decree Permit)	3.B.21	NO_x	Short Term: 3-hour rolling average: 1.0 lb/ton of 100% acid produced, not to exceed 18.75 lb/hr Long Term: 365-day rolling average: 0.6 lb/ton of 100% acid produced, not to exceed 49.28 tpy
	40 CFR 60, Subpart G Standards of Performance for Nitric Acid Plants 40 CFR 60.72(a)(1) and (2), Subpart G	3.B.22	NO_x	3.0 lb/ton of 100% acid produced (3-hour average) NOTE: This limit has been superseded by the limit specified in the Permit to Construct issued June 23, 2014
			Opacity	≤ 10%
AE-005	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued June 23, 2014 (Consent Decree Permit)	3.B.21	NO_x	Short Term: 3-hour rolling average: 1.0 lb/ton of 100% acid produced, not to exceed 47.92 lb/hr Long Term: 365-day rolling average: 0.6 lb/ton of 100% acid produced, not to exceed 125.93 tpy
	40 CFR 60, Subpart G Standards of Performance for Nitric Acid Plants 40 CFR 60.72(a)(1) and (2), Subpart G	3.B.22	NO_x	3.0 lb/ton of 100% acid produced (3-hour average) NOTE: This limit has been superseded by the limit specified in the Permit to Construct issued June 23, 2014
			Opacity	≤ 10%

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AE-006	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27, 2012 (Consent Decree Permit)	3.B.21	NO_x	Short Term: 3-hour rolling average: 1.0 lb/ton of 100% acid produced, not to exceed 29.79 lb/hr Long Term: 365-day rolling average: 0.6 lb/ton of 100% acid produced, not to exceed 78.29 tpy
	40 CFR 60, Subpart G Standards of Performance for Nitric Acid Plants 40 CFR 60.72(a)(1) and (2), Subpart G	3.B.22	NO_x	3.0 lb/ton of 100% acid produced (3-hour average) NOTE: This limit has been superseded by the limit specified in the Permit to Construct issued September 27, 2012
			Opacity	≤ 10%
AE-007	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27, 2012 (Consent Decree Permit)	3.B.21	NO_x	Short Term: 3-hour rolling average: 1.0 lb/ton of 100% acid produced, not to exceed 29.79 lb/hr Long Term: 365-day rolling average: 0.6 lb/ton of 100% acid produced, not to exceed 78.29 tpy
	40 CFR 60, Subpart G Standards of Performance for Nitric Acid Plants 40 CFR 60.72(a)(1) and (2), Subpart G	3.B.22	NO_x	3.0 lb/ton of 100% acid produced (3-hour average) NOTE: This limit has been superseded by the limit specified in the Permit to Construct issued September 27, 2012 (see above).
			Opacity	≤ 10%
Ammonium Nitrate Fertilizer (ANF) Plant				
AF-001 AF-002 AF-003 AF-004 AF-005	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.B.23	PM (filterable only)	$E=4.1p^{0.67}$
	40 CFR Part 64 – Compliance Assurance Monitoring (CAM) 40 CFR 64.2(a), CAM	3.B.40	PM/PM_{10}	CAM Applicability
AF-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued February 26, 1991, and modified on December 29, 1992, May 24, 1994, and October 11, 1994	3.B.24	PM/PM_{10} (filterable only)	12.4 lb/hr and 54.3 tpy

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AF-002	11 Miss. Admin. Code Pt. 2, Ch. 5 and 40 CFR 52.21(j), as established in the PSD Construction Permit issued September 21, 2004 [PSD BACT Limit]	3.B.25	PM/PM_{10} (filterable only)	34.0 lb/hr and 148.9 tpy
AF-003	11 Miss. Admin. Code Pt. 2, Ch. 5 and 40 CFR 52.21(j), as established in the PSD Construction Permit issued January 11, 2006 [PSD BACT Limit]	3.B.26	PM/PM_{10} (filterable only)	17.0 lb/hr and 74.46 tpy
AF-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the PSD Construction Permit issued January 11, 2006, and modified in the Permit to Construct issued February 2, 2015 [PSD BACT Limit]	3.B.27	PM (filterable only)	30.59 lb/hr and 133.98 tpy
AF-005	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued February 2, 2015 [PSD Avoidance Limits]	3.B.28	PM (filterable only)	17.17 lb/hr and 75.20 tpy
			PM_{10} (filterable + condensable)	10.36 lb/hr and 45.38 tpy
			$PM_{2.5}$ (filterable + condensable)	7.13 lb/hr and 31.23 tpy
			Scrubber Operating Requirements	Differential pressure drop > 20" H_2O Recirculating pump amps > 5 amps
Reciprocating Internal Combustion Engines and Other Miscellaneous Sources				
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-011 AK-012 AK-013	40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE) 40 CFR 63.6580, 63.6585(a) and (b), 63.6590(a)(1)(ii), (a)(2)(ii), (c)(4), and (c)(7), 63.6605, 63.6665, and Table 8 to Subpart ZZZZ	3.B.29	HAP	Applicability
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-013	40 CFR 63.6640(f)(1)-(3), Subpart ZZZZ	3.B.30		Operating requirements

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-011 AK-012 AK-013	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.16	PM (filterable only)	0.6 lb/MMBtu
AB-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued December 15, 2006	3.B.14	Fuel	Natural gas only
AK-011	40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2)(i), 60.4218, and Table 8 to Subpart IIII	3.B.31	NMHC+NO_x, PM (filterable only), CO, SO_2	Applicability
	40 CFR 60.4205(b), 60.4202(a)(2), 60.4206, Subpart IIII and 40 CFR Part 1039, Appendix I and 40 CFR 1039.105	3.B.32	NMHC+NO_x CO PM (filterable only) Opacity	4.0 g/kW-hr 3.5 g/kW-hr 0.2 g/kW-hr Limits for acceleration and lugging modes. See condition.
	40 CFR 60.4207(b), Subpart IIII and 40 CFR 1090.305	3.B.33	SO_2 (Diesel Fuel Requirements)	Max sulfur content of diesel fuel ≤15 ppm Min. cetane index of 40 or max aromatic content of 35 volume percent.
	40 CFR 60.4211(a)(1)-(3) and (c), Subpart IIII	3.B.34	NMHC+NO_x, PM (filterable only), CO, SO_2	Certified engine requirements
	40 CFR 60.4211(f)(1)-(3), Subpart IIII	3.B.35		Operating requirements
AK-012	40 CFR 60, Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60.4230(a)(4)(iv), 60.4246, and Table 3 to Subpart JJJJ	3.B.36	NO_x, CO, VOC	Applicability

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AK-012	40 CFR 60.4233(d), 60.4234, and Table 1, Subpart JJJJ	3.B.37	NO_x + HC CO	10 g/HP-hr 387 g/HP-hr
	40 CFR 60.4243(b)(1), Subpart JJJJ	3.B.38	NO_x, CO, VOC	Purchase, operate, and maintain certified engine
	40 CFR 60.4243(d)(1)-(3), Subpart JJJJ	3.B.39		Operating requirements

3.B.1 Emission Points AB-001, AB-002, AD-003, and AD-005 are subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63 Subpart DDDDD and the applicable General Provisions of 40 CFR 63, Subpart A, as noted in Table 10 to Subpart DDDDD.

For purposes of Subpart DDDDD, Emission Points AB-001 and AB-002 are considered existing boilers that are in the "units designed to burn gas 1 fuels" category. Emission Point AD-003 is considered an existing process heater that is in the "limited use boilers and process heaters" category. Emission Point AD-005 is considered an existing process heater that is in the "units designed to burn gas 1 fuels" category. Emission Points AB-001, AB-002, AD-003, and AD-005 are not subject to the emission limits in Table 2 or the operating limits in Table 4 of Subpart DDDDD.

(Ref.: 40 CFR 63.7480, 63.7485, 63.7490(a)(1) and (d), 63.7499(l) and (o), 63.7500(c) and (e), 63.7565, and Table 10 to Subpart DDDD)

3.B.2 For Emission Points AB-001, AB-002, AD-003, and AD-005, the permittee shall operate and maintain each unit in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the DEQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. The Subpart DDDDD work practice standards in Section 3.D of this permit apply at all times an affected unit is operating, except during periods of startup and shutdown.

(Ref.: 40 CFR 63.7500(a)(3) and (f) and 63.7505(a), Subpart DDDDD)

3.B.3 Emission Point AD-003 shall be limited to an annual capacity factor of less than or equal to 10 percent. As such, the unit will be considered a "limited use process heater" as defined in Subpart DDDDD.

(Ref.: 40 CFR 63.7575, Subpart DDDDD)

3.B.4 For Emission Point AB-001, the permittee is limited to a Nitrogen Oxides (NO_x) emission rate not to exceed 71.5 lb/hr and 313.2 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995)

3.B.5 For Emission Point AB-002, the permittee shall comply with the following operating restrictions:

(a) The boiler shall be operated at a standby firing rate not to exceed 6,000 scfh when the Cogeneration Facility (Emission Point AB-003) and Auxiliary Boiler No. 1 (Emission Point AB-001) are online.

(b) The boiler shall be operated at a rate not to exceed the capacity of Emission Point AB-001 (i.e., 127.5 Mscfh) when the Cogeneration Facility is online and Emission Point AA-001 is offline.

(c) The boiler may be operated at its design capacity when the Cogeneration Facility is down.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 16, 1999)

3.B.6 The combustion turbine associated with Emission Point AB-003 is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Gas Turbines, 40 CFR 60, Subpart GG, and the applicable requirements of the General Provisions in 40 CFR 60, Subpart A.

(Ref.: 40 CFR 60.330, Subpart GG)

3.B.7 For Emission Point AB-003, the combustion turbine shall be limited to a NO_x emission rate of 263 ppmvd at 15% oxygen (O_2) on a dry basis. Total mass emissions from the combustion turbine and Coen burner heat recovery steam generator shall not exceed 243.3 lb/hr and 1,066.3 tpy.

(Ref.: 40 CFR 60.332(a), Subpart GG, and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995)

3.B.8 For Emission Point AB-003, the permittee shall limit the Sulfur Dioxide (SO_2) mass emissions from the combustion turbine and Coen burner heat recovery steam generator to 9.1 lb/hr and 40 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 12, 1995)

3.B.9 For Emission Point AB-003, the permittee shall not burn any fuel containing sulfur in excess of 0.8 percent by weight (800 ppmw) in the stationary gas turbine.

(Ref.: 40 CFR 60.333(b), Subpart GG)

3.B.10 Emission Point AB-003 is subject to and shall comply with the applicable requirements of the NESHAP for Stationary Combustion Turbines, 40 CFR 63, Subpart YYYY. For purposes of this subpart, the combustion turbine is considered an existing stationary combustion turbine, and the affected unit is not required to meet any requirements of Subpart YYYY per 40 CFR 63.6090(b)(4).

(Ref.: 40 CFR 63.6080, 63.6085, and 63.6090(a)(1) and (b)(4), Subpart YYYY)

3.B.11 The Coen burner heat recovery steam generator associated with Emission Point AB-003 is subject to and shall comply with the applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc. Since the unit combusts natural gas only, there are no applicable emission standards.

(Ref.: 40 CFR 60.40c(a), Subpart Dc)

3.B.12 For Emission Points AB-001, AB-002, AB-003, AD-003, AD-005, AD-006, and AD-008, the permittee shall not have particulate emissions that exceed the emission rate as determined by the relationship:

$$E = 0.8808 * I^{-0.1667}$$

Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).)

3.B.13 For Emission Points AB-001, AB-002, AD-003, AD-005, AD-006, and AD-008, the permittee shall not discharge SO_2 in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

3.B.14 For Emission Points AB-001, AB-002, AB-004 and AD-003 the permittee shall not fire any fuel other than natural gas.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permits issued January 6, 2000, and December 15, 2006)

3.B.15 For Emission Point AD-004, the pilot light for the flare shall be fired with natural gas. The flare shall burn off-gas (primarily ammonia) during a flaring event.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued January 6, 2000)

3.B.16 For Emission Points AB-004, AD-004, AD-007, AJ-004, AJ-005, AK-003, AK-004, AK-005, AK-011, AK-012, and AK-013, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.B.17 For Emission Point AD-005, the permittee shall not fire any fuels other than natural gas and process purge gas.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued December 15, 2006)

3.B.18 For Emission Point AD-005, the permittee shall limit emissions of NO_x not to exceed 173.31 lb/hr and 759.10 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27. 2012, and modified September 16, 2016)

3.B.19 For Emission Point AD-005, the permittee shall limit production to no more than 620,500 tons per year of ammonia.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27. 2012, and modified September 16, 2016)

3.B.20 For Emission Point AD-005, the permittee shall limit the total heat input to the Primary Reformer to no more than 9,022,800 MMBtu per year, which shall include heat input from the Primary, Tunnel, and Superheater burners and from the Auxiliary Boiler.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 27. 2012, and modified September 16, 2016)

3.B.21 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall not discharge any gases containing NO_x in excess of 1.0 pound per ton of acid produced on a 3-hour rolling average and 0.6 pounds per ton of acid produced on a 365-day rolling average. These limits shall apply at all times except during periods of startup, shutdown, or malfunction. The acid production rate is expressed as 100% nitric acid. The permittee shall also comply with the corresponding NO_x lb/hr and tpy emission limits for each emission point listed in the table below. Compliance with the short and long-term limits will be calculated in accordance with the CEMS/CAM Plan contained in Appendix D.

Emission Point	Nitric Acid Plant	NO_x Emission Limit	
		lb/hr (3-hr average)	tpy (365-day total)
AE-003	AOP-6	18.75	49.28

Emission Point	Nitric Acid Plant	NO_x Emission Limit	
		lb/hr (3-hr average)	tpy (365-day total)
AE-005	AOP-8	47.92	125.93
AE-006	AOP-9	29.79	78.29
AE-007	AOP-10	29.79	78.29

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permits to Construct issued September 27, 2012, and June 23, 2014 (i.e., the Consent Decree Permits))

3.B.22 Emission Points AE-003, AE-005, AE-006, and AE-007 are subject to the Standards of Performance for Nitric Acid Plants, 40 CFR 60, Subpart G. As such, the permittee shall not discharge any gases according to the following restrictions:

(a) Emissions of NO_x shall not be in excess of 3.0 pounds per ton of acid produced determined on a 3-hour average and with acid production being expressed as 100% nitric acid.

(b) Opacity shall not exceed 10 percent except during periods of startup, shutdown, or malfunction.

The NO_x emission limit in paragraph (a) is superseded by the short-term NO_x emission limit of 1.0 lb/ton in Condition 3.B.21.

(Ref.: 40 CFR 60.72(a)(1) and (2), Subpart G)

3.B.23 For Emission Points AF-001, AF-002, AF-003, AF-004, and AF-005, the permittee shall not cause, permit, or allow the emission of particulate matter in total quantities in any one hour form any manufacturing process, which includes associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship

$$E=4.1p^{0.67}$$

where *E* is the emission rate in pounds per hour and *p* is the process weight input rate in tons per hour. Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).)

3.B.24 For Emission Point AF-001, the permittee shall be limited to a Particulate Matter (PM)/PM_{10} (filterable only) emission rate of 12.4 lb/hr and 54.3 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued February 26, 1991, and modified on December 29, 1992, May 24, 1994, and October 11, 1994)

3.B.25 For Emission Point AF-002, the permittee shall be limited to a PM/PM_{10} (filterable only) emission rate of 34.0 lb/hr and 148.9 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5 and 40 CFR 52.21(j), as established in the PSD Construction Permit issued September 21, 2004 [BACT Limit])

3.B.26 For Emission Point AF-003, the permittee shall be limited to a PM/PM_{10} (filterable only) emission rate of 17.0 lb/hr and 74.46 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5 and 40 CFR 52.21(j), as established in the PSD Construction Permit issued January 11, 2006 [BACT Limit])

3.B.27 For Emission Point AF-004, the permittee shall be limited to a PM/PM_{10} (filterable only) emission rate of 30.59 lb/hr and 133.98 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5 and 40 CFR 52.21(j), as established in the PSD Construction Permit issued January 11, 2006 and modified in the Permit to Construct issued February 2, 2015 [BACT Limit])

3.B.28 For Emission Point AF-005, the permittee shall be limited to a PM (filterable only) emission rate of 17.17 lb/hr and 75.20 tpy; PM_{10} (filterable + condensable) emission rate of 10.36 lb/hr and 45.38 tpy; and $PM_{2.5}$ (filterable + condensable) emission rate of 7.13 lb/hr and 31.23 tpy. In addition to the limits identified above, the permittee shall be limited to operating the scrubber such that the differential pressure drop remains in excess of 20" H_2O and the recirculating pump operates in excess of 5 amps.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued February 2, 2015 [PSD Avoidance Limits])

3.B.29 Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, AK-005, AK-011, AK-012, and AK-013 are subject to and shall comply with all appliable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ and the applicable General Provisions in 40 CFR 63, Subpart A, as noted in Table 8 to Subpart ZZZZ.

For purposes of this subpart, Emission Points AB-004 and AK-013 are considered existing, emergency, spark ignition (SI) stationary RICE at a major source of HAP emissions and shall comply with all applicable requirements of Subpart ZZZZ.

Emission Points AJ-004, AJ-005, AK-003, AK-004, and AK-005 are considered existing, emergency, compression ignition (CI) stationary RICE at a major source of HAP emissions and shall comply with all applicable requirements of Subpart ZZZZ.

Emission Point AK-011 is considered a new, emergency CI stationary RICE at a major source of HAP emissions. As such, the permittee shall comply with Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII.

Emission Point AK-012 is considered a new, emergency SI stationary RICE at a major source of HAP emissions. As such, the permittee shall comply with Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ.

At all times, each engine shall be in compliance with the applicable requirements of Subpart ZZZZ and the permittee shall operate and maintain the engines in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the DEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.6580, 63.6585(a) and (b), 63.6590(a)(1)(ii), (a)(2)(ii), (c)(4), and (c)(7), 63.6605, 63.6665, and Table 8 to Subpart ZZZZ)

3.B.30 For Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, AK-005, and AK-013, the engines shall be considered emergency stationary RICE under Subpart ZZZZ provided the engines only operate in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per year as described in (c) below. If the permittee does not operate an engine according to the requirements in (a)-(c) below, the engine will not be considered an emergency engine under Subpart ZZZZ and must meet all requirements for non-emergency engines.

(a) There is no limit on the use of an engine during an emergency situation.

(b) The permittee may operate an engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with an engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.

(c) Emergency engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (b). The 50 hours per year for non-emergency situations

cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 63.6640(f)(1)-(3), Subpart ZZZZ)

3.B.31 Emission Point AK-011 is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII and the applicable General Provisions in 40 CFR 60, Subpart A, a required in Table 8 to Subpart IIII.

(Ref.: 40 CFR 60.4200(a)(2)(i), 60.4218, and Table 8 to Subpart IIII)

3.B.32 For Emission Point AK-011, the permittee shall operate and maintain the engine such that it achieves the following emission standards for the life of the engine:

(a) Non-methane hydrocarbon and nitrogen oxides (NMHC + NO_x) ≤ 4.0 g/kW-hr

(b) Carbon monoxide (CO) ≤ 3.5 g/kW-hr

(c) PM ≤ 0.2 g/kW-hr

(d) Opacity shall not exceed:

(i) 20 percent during the acceleration mode

(ii) 15 percent during the lugging mode, and

(iii) 50 percent during the peaks in either the acceleration or lugging modes.

(Ref.: 60.4205(b), 60.4202(a)(2), and 60.4206, Subpart IIII and 40 CFR Part 1039, Appendix I and 40 CFR 1039.105)

3.B.33 For Emission Point AK-011, the permittee shall use diesel fuel that meets the following per gallon standards:

(a) Maximum sulfur content of ≤ 15 ppm, and

(b) Minimum cetane index of 40 or a maximum aromatic content of 35 volume percent

(Ref.: 40 CFR 60.4207(b), Subpart IIII and 40 CFR 1039.305)

3.B.34 For Emission Point AK-011, the permittee shall comply with the emission standards contained in Condition 3.B.32 by purchasing, installing, operating, and maintaining an engine certified to meet the emission standards. The permittee shall operate and maintain the engine in accordance with the manufacturer's emission-related written instructions and can only change the emission-related settings that are permitted by the manufacturer. The permittee shall meet the applicable requirements of 40 CFR Part 1068.

(Ref.: 40 CFR 60.4211(a)(1)-(3) and (c), Subpart IIII)

3.B.35 For Emission Point AK-011, the engine shall be considered an emergency stationary engine under Subpart IIII provided the engine only operates according to the requirements in paragraphs (a) through (c) below. If the permittee does not operate the engine according to the requirements in paragraphs (a) through (c) below, the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines.

(a) There is no limit on the use of the engine during an emergency situation.

(b) The permittee may operate the engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with an engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.

(c) The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (b). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1)-(3), Subpart IIII)

3.B.36 Emission Point AK-012 is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ and the applicable General Provisions in 40 CFR 60, Subpart A, as required in Table 3 to Subpart JJJJ.

(Ref.: 40 CFR 60.4230(a)(4)(iv), 60.4246, and Table 3 to Subpart JJJJ)

3.B.37 For Emission Point AK-012, the permittee shall operate and maintain the engine such that it meets the following standards over the entire life of the engine.

(a) $NO_x + HC \leq 10$ g/HP-hr

(b) $CO \leq 387$ g/HP-hr

(Ref.: 40 CFR 60.4233(d), 60.4234, and Table 1, Subpart JJJJ)

3.B.38 For Emission Point AK-012, the permittee shall demonstrate compliance with the emission standards in Condition 3.B.37 by purchasing a certified engine and operating and maintaining the certified engine according to the manufacturer's emission-related written instructions. The permittee may adjust engine settings provided the adjustments are consistent with the manufacturer's instructions.

(Ref.: 40 CFR 60.4243(b)(1), Subpart JJJJ)

3.B.39 For Emission Point AK-012, the engine shall be considered an emergency stationary engine under Subpart JJJJ provided the engine only operates in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per year as described in paragraph (c) below. If the permittee does not operate the engine according to the requirements in paragraphs (a) through (c) below, the engine will not be considered an emergency engine under Subpart JJJJ and must meet all requirements for non-emergency engines.

(a) There is no limit on the use of the engine during an emergency situation.

(b) The permittee may operate the engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with an engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.

(c) The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (b). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4243(d)(1)-(3), Subpart JJJJ)

3.B.40 For Emission Points AE-003, AE-005, AE-006, AE-007 and AF-001 through AF-005, the permittee is subject to and shall comply with all applicable requirements of 40 CFR Part 64 – Compliance Assurance Monitoring (CAM).

(Ref.: 40 CFR 64.2(a), Compliance Assurance Monitoring)

C. INSIGNIFICANT AND TRIVIAL ACTIVITY EMISSION LIMITATIONS & STANDARDS

Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.C.1	PM	0.6 lb/MMBtu
11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.C.2	SO_2	4.8 lb/ MMBtu

3.C.1 The maximum permissible emission of ash and/or particulate matter (PM) from fossil fuel burning installations of less than ten (10) million BTU (MMBtu) per hour heat input shall not exceed 0.6 pounds per MMBTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per MMBtu heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

D. Work Practice Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AB-001 AB-002 AD-003 AD-005	40 CFR 63.7500(c), 63.7515(d), and 63.7540(a)(10), (12), and (13), Subpart DDDDD	3.D.1	HAP	Tune-up frequency
	40 CFR 63.7540(a)(10)(i)-(vi), Subpart DDDDD	3.D.2		Tune-up requirements
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-013	40 CFR 63.6602 and Table 2c, Subpart ZZZZ	3.D.3	HAP	Maintenance requirements
	40 CFR 63.6625(e) and (h), 63.6640(a), and Table 6, Subpart ZZZZ	3.D.4		Operating requirements

3.D.1 For Emission Points AB-001, AB-002, and AD-003, the permittee shall conduct a tune-up on each unit every five (5) years since Emission Points AB-001 and AB-002 are equipped with a continuous oxygen trim system and Emission Point AD-003 is considered a limited use process heater. Each subsequent tune-up must be completed no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled shutdown, but the burner must be inspected once every 72 months. For each unit with a continuous oxygen trim system, the permittee shall set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

For Emission Point AD-005, the permittee shall conduct an annual tune-up while the reformer is burning the type of fuel (or fuels) that provided the majority of the heat input to the reformer over the 12 months prior to the tune-up. Subsequent tune-ups for Emission Point AD-005 must be conducted no later than 13 months after the previous tune-up.

If any unit is not operating on the required date for a tune-up, the permittee shall conduct the required tune-up within 30 calendar days of startup.

(Ref.: 40 CFR 63.7500(c), 63.7515(d), and 63.7540(a)(10), (12), and (13), Subpart DDDDD)

3.D.2 For Emission Points AB-001, AB-002, AD-003, and AD-005, each tune-up shall consist of the following:

(a) As applicable, inspect the burner, and clean or replace any components of the burner, as necessary (the burner inspection may be completed any time prior to the tune-up or can be delayed until the next scheduled unit shutdown).

(b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (inspection may be delayed until the next scheduled unit shutdown).

(d) Optimize total emission of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject.

(e) Measure the concentrations from the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(f) Maintain on-site and submit, if requested by DEQ, a report containing the information in (1) through (3) below:

(1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater.

(2) A description of any corrective actions taken as part of the tune-up.

(3) For Emission Point AD-005, the type and amount of fuel fired over the previous 12 months prior to the tune-up.

(Ref.: 63.7540(a)(10)(i)-(vi), Subpart DDDDD)

3.D.3 For Emission Points AB-004 and AK-013 (both SI RICE) and Emission Points AJ-004, AJ-005, AK-003, AK-004, and AK-005 (all CI RICE), the permittee shall comply with the following requirements:

(a) Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first, or perform an oil analysis at the same frequency in order to extend the oil change requirement in accordance with 40 CFR 63.6625(i) or (j).

(b) Inspect air cleaner (CI RICE) or spark plugs (SI RICE) every 1,000 hours of operation or within 1 year + 30 days, whichever comes first, and replace as necessary.

(c) Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days, whichever comes first, and replace as necessary.

If an engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practices according to the schedule in paragraphs (a) through (c) above, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

(Ref.: 40 CFR 63.6602 and Table 2c, Subpart ZZZZ)

3.D.4 For Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, and AK-005, and AK-013, the permittee shall operate and maintain the engines according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

(Ref.: 40 CFR 63.6625(e) and (h), 63.6640(a), and Table 6, Subpart ZZZZ)

SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with terms and conditions contained in this permit (including emission limitations, standards, or work practices) by January 31 of each year for the preceding calendar year. If the permit was reissued or modified during the course of the preceding calendar year, the compliance certification shall address each version of the permit. Each compliance certification shall include the following information:

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The compliance status;

(c) Whether compliance was continuous or intermittent;

(d) The method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;

(e) Such other facts as may be specified as pertinent in specific conditions elsewhere in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5)(a), (c), and (d).)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. GENERAL MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring the following information:

(a) The date, place as defined in the 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 such analyses; and

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(1).)

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(2).)

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 of each calendar year for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with Regulation 11 Miss. Admin. Code Pt. 2, R. 6.2.E.

For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be submitted by the end of the month following each calendar quarter period (i.e., April 30, July 31, October

31, and January 31), and any required annual reports shall be submitted by January 31 following each calendar year.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)
(Ref.: 40 CFR 60.19(c), 61.10(g), and 63.10(a)(5))

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements (including those attributable to upsets), the probable cause of such deviations, and any corrective actions or preventive measures taken. The report shall be made within five (5) working days of the time the deviation began.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).)

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements (if applicable). All test methods shall be those respective versions (or their equivalents) approved by the EPA.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.8 Unless otherwise specified in Section 4 of this permit, the monitoring, testing, recordkeeping, and reporting requirements specified in Section 5 herein supersede the requirements of any preceding permit to construct and/or operate upon permit issuance.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
Facility-wide	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).	5.B.1	Control equipment	Regular maintenance as necessary and maintain a log of malfunctions and downtime.
AB-001	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.2	NO_x	Biennial stack test
AB-001 AB-002 AB-003	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.3	Fuel	Monitor and record fuel use
AB-003	40 CFR 60.334(c), Subpart GG	5.B.4	NO_x	Biennial stack test
	40 CFR 60.334(h)(3), Subpart GG	5.B.5	Fuel	Current, valid purchase contract, tariff sheet or transportation contract or fuel sampling demonstrating compliance with natural gas sulfur content
	40 CFR 60.48c(g) and (i), Subpart Dc	5.B.6	Fuel	Monitor fuel usage
AD-003	40 CFR 63.7525(k), Subpart DDDDD	5.B.7	HAP	Document fuel usage
AB-001 AB-002 AD-003 AD-005	40 CFR 63.7555(a) and 63.7560, Subpart DDDDD	5.B.8	HAP	Recordkeeping
AD-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	NO_x	Annual stack test
		5.B.10	Ammonia Production	Monitoring and recordkeeping
		5.B.11	Heat Input	Fuel monitoring and recordkeeping
AE-003 AE-005 AE-006 AE-007	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.12	Opacity	Use correlation of concentration from NO_x CEMS to demonstrate compliance with opacity limit
	40 CFR 60.73(a)-(c), Subpart G and Permits to Construct issued September 27, 2012 and June 23, 2014 (Consent Decree Permits)	5.B.13	NO_x	Install, maintain, and operate CEMS
			Production rate/hours of operation	Monitor and record daily production rate and hours of operation for each plant
	40 CFR 64.3(a) and (b), 64.6(c), CAM	5.B.14	NO_x	CAM Requirements. Comply with CEMS Plan in Appendix D.

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AF-001 AF-002 AF-003 AF-004	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.15	PM/PM_{10}	Biennial stack test
AF-001 AF-002 AF-003 AF-004 AF-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.16	Opacity	Monitor opacity per VEE
	40 CFR 64.3(a) and (b), 64.6(c), CAM	5.B.17	PM/PM_{10}	CAM Requirements. Comply with CAM Plans in Appendix C.
AF-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.18	$PM/PM_{10}/PM_{2.5}$	Biennial stack test
		5.B.19	Scrubber operating parameters	Record operating data every 15 minutes
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-013	40 CFR 63.6625(f) and 63.6655(f)(1), Subpart ZZZZ	5.B.20	HAP	Install non-resettable hour meter and record hours of operation.
	40 CFR 63.6655(a)(1), (2), and (5) and (e)(2) and 63.6660, Subpart ZZZZ	5.B.21		General recordkeeping
AK-011	40 CFR 60.4209(a) and 60.4214(b), Subpart IIII	5.B.22	$NMHC + NO_x$ PM (filterable only) CO SO_2	Install non-resettable hour meter and record hours of operation
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.23		Records concerning specifications of diesel fuel
AK-012	40 CFR 60.4237(c) and 60.4245(b), Subpart JJJJ	5.B.24	$NO_x + HC$ CO	Install non-resettable hour meter and record hours of operation
	40 CFR 60.4245(a)(1)-(3), Subpart JJJJ	5.B.25		General recordkeeping requirements
AE-003 AE-005 AE-006 AE-007 AF-001 AF-002 AF-003 AF-004 AF-005	40 CFR 64.7(b) and (c), CAM	5.B.26	Operation & Maintenance	Operation and maintenance requirements for monitoring system(s)
	40 CFR 64.7(d), CAM	5.B.27	Corrective Action	Corrective Action response to an excursion/exceedance of a CAM indicator
	40 CFR 64.8, CAM	5.B.28	QIP	Upon request by DEQ, develop a Quality Improvement Plan (QIP)
	40 CFR 64.9(b), CAM	5.B.29	CAM Records	Maintain CAM records as specified

5.B.1 For the entire facility, regular maintenance shall be performed, as necessary, to maintain proper operation of pollution control equipment. The permittee shall maintain a log of

control equipment malfunctions and downtime, including the date, time, duration, and cause of the malfunction or downtime and the corrective and/or preventive action(s) taken as a result of the malfunction or downtime. These records must be made available for review upon request by DEQ personnel.

(Ref.: 11 Miss. Admin. Code, Pt. 2, R. 6.3.A(3)(a)(3).)

5.B.2 For Emission Point AB-001, the permittee shall demonstrate compliance with the emission limits for NO_x by conducting a stack test biennially in accordance with EPA Reference Method 7B, 40 CFR 60, Appendix A or an EPA-approved equivalent. For the purpose of compliance demonstration, the permittee shall operate the source at the maximum rated capacity. Subsequent stack tests shall be completed within 25 months of the previous test.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.3 For Emission Points AB-001, AB-002, and AB-003, the permittee shall monitor and record the hourly gas flow in scfh supplied to each unit. These records may be maintained in electronic form on the facility's Plant Information (PI) system. These records shall be made available for review upon request by DEQ.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For Emission Point AB-003, the permittee shall demonstrate compliance with the emission limits for NO_x by conducting a stack test biennially in accordance with EPA Reference Method 20, 40 CFR 60, Appendix A. For the purposes of compliance demonstration, the permittee shall operate the source at peak load. In lieu of using Method 20, the permittee may use EPA Reference Method 7E and either Method 3 or 3A for determining NO_x and diluent concentrations. Subsequent stack tests shall be completed within 25 months of the previous test.

(Ref.: 40 CFR 60.334(c), Subpart GG)

5.B.5 For Emission Point AB-003, the permittee shall demonstrate compliance with the sulfur dioxide standard in 40 CFR 60.333(b) by maintaining documentation that the gaseous fuel meets the definition of "natural gas" as defined in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:

(a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75 is required.

(Ref.: 40 CFR 60.334(h)(3), Subpart GG)

5.B.6 For Emission Point AB-003, the permittee shall record and maintain records of the amount of fuel combusted in the Coen burner on a monthly basis. These records shall be maintained by the permittee for a period of two years following the date of such records.

(Ref.: 40 CFR 60.48c(g) and (i), Subpart Dc)

5.B.7 For Emission Point AD-003, the permittee shall keep fuel use records for the days the process heater operates.

(Ref.: 40 CFR 63.7525(k), Subpart DDDDD)

5.B.8 For Emission Points AB-001, AB-002, AD-003, and AD-005, the permittee shall keep the following records:

(a) A copy of each notification and report that has been submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report.

(b) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations.

(c) For AD-003, a copy of the permit which limits the annual capacity factor to less than or equal to 10 percent and the fuel use records for the days the process heater operated.

For Emission Points AB-001, AB-002, AD-003, and AD-005, all records shall be in a form suitable and readily available for expeditious review and shall be kept for a period of five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report or record. These records must be kept or accessible (i.e., through a computer network) on-site for at least two (2) years after the date the record was created. The records may be kept off-site for the remaining three (3) years.

(Ref.: 40 CFR 63.7555(a) and 63.7560, Subpart DDDDD)

5.B.9 For Emission Point AD-005, the permittee shall demonstrate compliance with the hourly NO_x emission limit by conducting an annual stack test using EPA Reference Method 7E or an EPA-approved equivalent. Subsequent stack tests shall be completed within 13 months of the previous test.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.10 For Emission Point AD-005, the permittee shall demonstrate compliance with the ammonia production limit by recording the amount of ammonia produced in short tons (1 ton = 2,000 pounds) for each calendar month and calculating a total production rate for

each consecutive 12-month period. Records shall be kept documenting the raw operating data and supporting calculations used to demonstrate compliance with the limit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.11 For Emission Point AD-005, the permittee shall demonstrate compliance with the heat input limit by keeping records of the amount of each fuel (natural gas or purge gas), in standard cubic feet (scf), fired in each of the burner types (i.e., Primary, Tunnel, and Superheater) and Auxiliary Boiler for each calendar month. The monthly total heat input should be calculated using the recorded monthly fuel usage values and the heating value of each fuel in btu/scf that is determined through an annual analysis of each fuel using ASTM 3588 or approved equivalent. The calculated monthly total shall be used to calculate the total heat input for each consecutive 12-month period. Records shall be kept documenting the raw operating data and supporting calculations used to demonstrate compliance with the limit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.12 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall demonstrate compliance with the opacity limit by measuring the NO_x concentration using the CEMS required by 40 CFR 60, Subpart G. NO_x concentrations averaged over a 3-hour rolling period (calculated hourly) that exceed the values in the table below shall indicate an exceedance of the opacity standard, unless otherwise demonstrated by a visible emissions evaluation (VEE) per EPA Test Method 9.

Emission Point	Nitric Acid Plant	NO_x Concentration (ppmvd)
AE-003	AOP-6	354
AE-005	AOP-8	234
AE-006	AOP-9	226
AE-007	AOP-10	242

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.13 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring NO_x in accordance with the CEMS/CAM Plan contained in Appendix D of this permit. The permittee shall comply with the requirements of 40 CFR 60.13 and Appendix B of 40 CFR 60 for the continuous monitoring system. The permittee shall establish a conversion factor in accordance with 40 CFR 60.73(b) for the purpose of converting monitoring data into units of the applicable standard. The conversion factor shall be re-established during each Relative Accuracy Test Audit (RATA) conducted in accordance with 40 CFR 60,

Appendix F. The permittee shall also record the daily production rate and hours of operation for each plant.

(Ref.: 40 CFR 60.73(a)-(c), Subpart G and Permits to Construct issued September 27, 2012, and June 23, 2014 (Consent Decree Permits))

5.B.14 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall maintain a continuous emissions monitoring system for NO_x in accordance with the CEMS Plan/CAM Plan found in Appendix D of the permit.

(Ref.: 40 CFR 64.3(a) and (b), 64.6(c), Compliance Assurance Monitoring)

5.B.15 For Emission Points AF-001, AF-002, AF-003, and AF-004, the permittee shall demonstrate compliance with the permitted emission limits for PM/PM_{10} by conducting a biennial stack test in accordance with EPA Reference Methods 1-5, 40 CFR 60, Appendix A. Subsequent stack tests shall be completed within 25 months of the previous test. For the purpose of compliance demonstration, the permittee shall operate each source at its maximum capacity of low-density ammonium nitrate (LDAN) prills or high-density ammonium nitrate (HDAN), as operating conditions allow.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.16 For Emission Points AF-001, AF-002, AF-003, AF-004, and AF-005, the permittee shall demonstrate compliance with the opacity limit by completing a visible emissions evaluation (VEE) per EPA Reference Method 9, 40 CFR 60, Appendix A. The observations should be completed concurrently during the required biennial stack tests. If visibility or other conditions prevent the opacity observations from being performed concurrently with the stack testing, the permittee shall reschedule the opacity observations as soon after the stack tests as possible, but no later than thirty (30) days.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.17 For Emission Points AF-001 through AF-005, the permittee shall comply with the CAM Plans found in Appendix C of the permit and shall monitor the following parameters:

(a) Emission Point AF-001: Amperage values on the non-condensible blower, the cooling air blowers, and the recirculation pump and temperature over the five seal pots.

(b) Emission Point AF-002: Differential pressure across the scrubber and amperage of the recirculation pump.

(c) Emission Point AF-003: Differential pressure across the scrubber and amperage of the recirculation pump.

(d) Emission Point AF-004: Water level of each fly ash scrubber sump.

(e) Emission Point AF-005: Differential pressure across the scrubber and amperage of the recirculation pump.

(Ref.: 40 CFR 64.3(a) and (b), 64.6(c), Compliance Assurance Monitoring)

5.B.18 For Emission Point AF-005, the permittee shall demonstrate compliance with the permitted emission limits for PM, PM_{10}, and $PM_{2.5}$ by conducting a biennial stack test in accordance with EPA Reference Methods 5, 201, and 201A, or other EPA-approved equivalent, to determine the filterable portion and EPA Method 202, or other EPA-approved equivalent, to determine the condensable portion. The test method used to determine the filterable portion shall measure the total PM mass, the mass of PM with a diameter of 10 microns and less, and the mass of PM with a diameter of 2.5 microns and less. The permittee may choose to assume all of the total filterable PM (Method 5) to be 2.5 microns or less. Should the permittee choose to use this assumption and the test results show total PM emissions greater than any of the PM emission limits, the DEQ shall assume the emission point is out of compliance with all fractions of PM for which the test results showed an exceedance. Subsequent stack tests shall be completed within 25 months of the previous test. The permittee shall operate the source as close to the maximum rated capacity as operating conditions allow during the performance test.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.19 For Emission Point AF-005, the permittee shall record the differential pressure and the recirculating pump amperage to ensure the No. 5 Finishing Train Wet Scrubber is operated within the operating limits established in this permit. Data shall be recorded every 15 minutes during periods when the No. 5 Finishing Train is in operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.20 For Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, AK-005, and AK-013, the permittee shall install a non-resettable hour meter on each engine (if not already installed). The permittee shall keep records of the hours of operation of each engine that are recorded through the hour meters. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

(Ref.: 40 CFR 63.6625(f) and 63.6655(f)(1), Subpart ZZZZ)

5.B.21 For Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, AK-005, and AK-013, the permittee shall keep the following records:

(a) A copy of each notification and report submitted to comply with Subpart ZZZZ.

(b) Records of the occurrence and duration of each malfunction of an engine or hour meter.

(c) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore a malfunctioning engine or hour meter to its normal manner of operation.

(d) Records of the maintenance conducted on each engine in order to demonstrate the engines were operated and maintained in accordance to the maintenance plan.

All records shall be in a form suitable and ready for expeditious review for a period of five (5) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records may be kept in an electronic or hard copy format.

(Ref.: 40 CFR 63.6655(a)(1), (2), and (5) and (e)(2) and 63.6660, Subpart ZZZZ)

5.B.22 For Emission Point AK-011, the permittee shall install a non-resettable hour meter on the engine, if one is not already installed. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the hour meter. The permittee shall record the time of operation and the reason the engine was in operation during that time.

(Ref.: 40 CFR 60.4209(a) and 60.4214(b), Subpart IIII)

5.B.23 For Emission Point AK-011, the permittee shall maintain records documenting the diesel fuel meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.24 For Emission Point AK-012, the permittee shall install a non-resettable hour meter on the engine, if one is not already installed. The permittee shall keep records of the operation of the engine that is recorded through the hour meter. The permittee shall document how many hours are spent in emergency operation, including what classified the operation as an emergency, and how many hours are spent in non-emergency operation.

(Ref.: 40 CFR 60.4237(c) and 60.4245(b), Subpart JJJJ)

5.B.25 For Emission Point AK-012, the permittee shall keep the following records:

(a) A copy of all notifications submitted to comply with Subpart JJJJ and any corresponding supporting information.

(b) Records documenting the maintenance conducted on the engine.

(c) Documentation from the engine manufacturer that the engine is certified to meet the emission standards.

(Ref.: 40 CFR 60.4245(a)(1)-(3), Subpart JJJJ)

5.B.26 For Emission Points AE-003, AE-005, AE-006, AE-007 and AF-001 through AF-005, the permittee shall comply with the following requirements for the monitoring required

by the approved CAM Plan:

(a) *Proper maintenance.* At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used, including in data averaging and calculations or in fulfilling a minimum data availability requirement, as applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(Ref.: 40 CFR 64.7(b) and (c), Compliance Assurance Monitoring)

5.B.27 For Emission Points AE-003, AE-005, AE-006, AE-007 and AF-001 through AF-005, upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(Ref.: 40 CFR 64.7(d), Compliance Assurance Monitoring)

5.B.28 For Emission Points AE-003, AE-005, AE-006, AE-007 and AF-001 through AF-005, based on the results of a determination made under Condition 5.B.27, the DEQ may require the permittee to develop and implement a Quality Improvement Plan (QIP) containing the elements specified in 40 CFR 64.8(b). The QIP shall be developed and

implemented within 180 days of written notification from DEQ that a QIP is required. The DEQ may require the permittee make reasonable changes to the QIP if the QIP fails to address the cause of the control device performance problem or fails to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that applies.

(Ref.: 40 CFR 64.8, Compliance Assurance Monitoring)

5.B.29 For Emission Points AE-003, AE-005, AE-006, AE-007 and AF-001 through AF-005, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.28 and any activities undertaken to implement a QIP, data used to document the adequacy of monitoring, and monitoring maintenance or corrective actions, as applicable. As applicable, records of monitoring data and monitoring performance data should include date and time, who performed the analysis, analytical techniques or methods used, results and operating conditions at the time of the sampling or measurement. These records may be maintained in hard copy form or electronically, provided they are available for expeditious inspection and review.

(Ref.: 40 CFR 64.9(b), Compliance Assurance Monitoring)

C. Specific Reporting Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
AB-001 AB-002 AD-003 AD-005	40 CFR 63.7550(a), (b), (c), (d), and (h)(3), and Table 9, Subpart DDDDD	5.C.1	HAP	Compliance report
AE-003 AE-005 AE-006 AE-007	40 CFR 60.73(e), Subpart G; 40 CFR 60.7(c), Subpart A; and 40 CFR 60.19(c) and (f), Subpart A	5.C.2	NO_x	Excess emissions reporting
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.3		Semiannual reporting of NO_x emissions
		5.C.4	Opacity	Semiannual reporting of opacity emissions
AE-003 AE-005 AE-006 AE-007 AF-001 AF-002 AF-003 AF-004 AF-005	40 CFR 64.9(a), CAM	5.C.5	CAM Reporting	Semiannual reporting requirements
	40 CFR 64.7(e), CAM	5.C.6	CAM Modification	Promptly notify DEQ of failure to achieve limit/standard though no excursion or exceedance was indicated by approved monitoring
AB-002	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.7	Fuel Usage	Report fuel usage rates
Facility-wide	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.8	Stack test results	Report results of stack tests
AB-004 AJ-004 AJ-005 AK-003 AK-004 AK-005 AK-013	40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ	5.C.9	HAP	Report deviations

5.C.1 For Emission Points AB-001, AB-002, AD-003 and AD-005, the permittee shall include the following information in the semiannual compliance report submitted in accordance with Condition 5.A.4 and covering the period during which a five-year tune-up is performed according to Condition 3.D.1:

(a) Company and facility name and address.

(b) Process unit information, emission limitations, and operating parameter limitations.

(c) Date of report and beginning and ending dates of the reporting period.

(d) The date of the most recent tune-up and date of the most recent burner inspection if it is was not done in conjunction with the tune-up and was delayed until the next scheduled or unscheduled unit shutdown.

(e) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(f) For Emission Point AD-003, the compliance report shall also include the total operating time during the reporting period.

(g) For a deviation from an operating limit, the compliance report shall contain the information in paragraphs (1) and (2) below:

(1) The description of the deviation and which work practice standard from which the permittee deviated; and

(2) Information on the number, duration, and cause of the deviation(s) and the corrective action taken.

(h) In addition to submittal to DEQ, the information required in (a)-(g) above must be submitted electronically to EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) that can be accessed through EPA's Central Data Exchange (CDX). The permittee shall use the appropriate electronic report in CEDRI for Subpart DDDDD.

(Ref.: 40 CFR 63.7550(a), (b), (c), (d), and (h)(3), and Table 9, Subpart DDDDD)

5.C.2 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall submit semiannual excess emission reports containing the information in 40 CFR 60.7(c)(1)-(4). The semiannual report shall be postmarked by the 31st day following the end of each six-month period. If there are no excess emissions during the reporting period, the permittee shall submit a report stating such. Excess emissions are defined as any 3-hour period during which the nitrogen oxides emissions (arithmetic average of three contiguous 1-hour periods), as measured by the CEMS, exceed the standard of 3.0 lb/ton of 100% acid produced.

(Ref.: 40 CFR 60.73(e), Subpart G and 40 CFR 60.7(c) and 60.19(c) and (f), Subpart A)

5.C.3 For Emission Points AE-003, AE-005, AE-006, and AE-007, in accordance with Condition 5.A.4, the permittee shall submit a summary of the NO_x emissions in tons per year from each emission point for each consecutive 12-month period in the semiannual reporting period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.4 For Emission Points AE-003, AE-005, AE-006, and AE-007, the permittee shall submit in the semiannual report, any instances where a 3-hour average NO_x concentration exceeded the values established to demonstrate compliance with the opacity limit. The permittee shall also submit the results of any VEEs conducted per EPA Test Method 9 during periods when the CEMS indicated an exceedance of the NO_x concentration. These reports shall be submitted in accordance with Condition 5.A.4

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.5 For Emission Points AE-003, AE-005, AE-006, AE-007, and AF-001 through AF-005, the permittee shall submit semiannual reports in accordance with Condition 5.A.4 of the following information, as applicable:

(a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(c) A description of the actions taken to implement a QIP during the reporting period as specified in Condition 5.B.28. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances.

(Ref.: 40 CFR 64.9(a), Compliance Assurance Monitoring)

5.C.6 For Emission Points AE-003, AE-005, AE-006, AE-007, and AF-001 through AF-005, if the permittee identifies a failure to achieve compliance with the emission limitation or standard for which the approved CAM monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or monitoring additional parameters.

(Ref.: 40 CFR 64.7(e), Compliance Assurance Monitoring)

5.C.7 For Emission Point AB-002, the permittee shall report any hourly gas flow rate that exceeds 6,000 scfh when both the Auxiliary Boiler No. 1 (Emission Point AB-001) and the Cogeneration Facility (Emission Point AB-003) are in operation. The date and hour of each such occurrence shall be recorded and reported in the semiannual report submitted in accordance with Condition 5.A.4.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.8 For those emission points requiring a performance/stack test in Section 5.B, the permittee shall comply with the following notification and reporting provisions.

(a) The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to DEQ. If the initial protocol is acceptable, subsequent protocols may be waived if they do not contain significant changes.

(b) The DEQ shall be notified at least ten (10) days prior to the scheduled test date so that an observer may be present to witness the test(s).

(c) The permittee shall submit results from any required stack tests to the DEQ within 60 days of the completion of any stack test required by this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.9 For Emission Points AB-004, AJ-004, AJ-005, AK-003, AK-004, AK-005, and AK-013, the permittee shall report all deviations from any emission or operating limitation of Subpart ZZZZ in the semiannual report submitted in accordance with Condition 5.A.4. Such deviations shall include any failure to perform the work practice on the required schedule. In the event a work practice is delayed because the engine is operating during an emergency or if performing the work practice on the required schedule posed an unacceptable risk under federal, state, or local law, the permittee shall include in the report the reason for the delay.

(Ref.: 40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

None permitted.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at **http://www.ecfr.gov/** under Title 40, or DEQ shall provide a copy upon request from the permittee.

7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.

7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.

7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:

(a) All containers in which a class I or class II substance is stored or transported;

(b) All products containing a class I substance; and

(c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.

7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:

(a) Servicing, maintaining, or repairing appliances containing class I, class II or non-exempt substitute refrigerants;

(b) Disposing of appliances, including small appliances and motor vehicle air conditioners; or

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, as

well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute refrigerants.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.

7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:

(a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

(d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

List of Abbreviations Used In this Permit

BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lb/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBtu/hr	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants, 40 CFR Part 61; or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR Part 63
NMHC	Non-Methane Hydrocarbon
NMVOC	Non-Methane Volatile Organic Compounds
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR Part 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOHAP	Volatile Organic Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

List of Regulations Referenced In This Permit

11 Miss. Admin. Code, Part 2, Ch. 1. – Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Amended May 24, 2018)

11 Miss. Admin. Code, Part 2, Ch. 2. – Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended February 22, 2024)

11 Miss. Admin. Code, Part 2, Ch. 6. – Air Emission Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act (Amended June 27, 2024)

40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

40 CFR 60, Subpart G, Standards of Performance for Nitric Acid Plants

40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR 63, Subpart YYYY, NESHAP for Stationary Combustion Turbines

40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines

40 CFR 63, Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

40 CFR 64, Compliance Assurance Monitoring

40 CFR 82, Protection of Stratospheric Ozone

APPENDIX C

Compliance Assurance Monitoring Plans for the Ammonium Nitrate Plant

CAM PLAN FOR EMISSION POINT AF-001
CONDENSER-CONCENTRATOR

	Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
Indicator	Amperage on the non-condensibles blower to the packed tower scrubber.	Amperage on the cooling air blowers to the packed tower scrubber.	Amperage on the recirculation pumps of the scrubber.	Thermocouple temperature reading over each of five (5) seal pots.
Measurement Approach	Fan amperage of the non-condensibles blower will be continuously measured by an amperage meter to ensure that the scrubber is performing as designed. An alarm will sound when a low amperage level is indicated.	Fan amperage of the cooling air blowers will be continuously measured by an amperage meter to ensure that the scrubber is performing as designed. An alarm will sound when a low amperage level is indicated.	Amperage of the recirculation pumps will be continuously measured by an amperage meter to ensure that the scrubber is performing as designed. An alarm will sound when a low amperage level is indicated.	Thermocouples (indicating temperature) mounted above each of five (5) seal pots will be continuously monitored to indicate flow. An alarm will sound when an elevated temperature is indicated.
Monitoring Methods and Location	The amperage meter is physically connected to the blower electrical system and data is electronically recorded.	The amperage meter is physically connected to the blower electrical system and data is electronically recorded.	The amperage meter is physically connected to the recirculation pumps' electrical system and data is electronically recorded.	Thermocouples will measure temperature above seal pots and data electronically recorded.
Indicator Range	An excursion is defined as any 3-hour average amperage value below 5 amps. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any consecutive 3-hour period during plant operation when the amperage values of all three blowers are below 5 amps at one time. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any consecutive 3-hour period during plant operation when there are not at least two pumps on-line with amperage values of 5 amps or above. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any continuous sixty (60) minute period during plant operation where the thermocouple reading above any seal pot exceeds 180° F. Excursions trigger an inspection, corrective action and reporting.
Data Collection Frequency	Amperage is monitored and recorded continuously.	Amperage is monitored and recorded continuously.	Amperage is monitored and recorded continuously.	Thermocouple temperature readings are monitored and recorded continuously.
Averaging Period	Readings are taken every 15 minutes and averaged for the hour. The three-hour average is then used for determining an excursion.	Readings are taken every 15 minutes and averaged for the hour. The three-hour average is then used for determining an excursion.	Readings are taken every 15 minutes and averaged for the hour. The three-hour average is then used for determining an excursion.	Data is recorded continuously and averaged for each minute. Sixty consecutive one-minute readings are then used for determining an excursion.
Record-keeping	Records of the amperage value and corrective action taken are generated whenever an alarm sounds. Electronic records of all the data collected are also available.	Records of the amperage value and corrective action taken are generated whenever an alarm sounds indicating that there are no blowers online. Electronic records of all the data collected are also available.	Records of the amperage value and corrective action taken are generated whenever an alarm sounds indicating that less than two pumps are online. Electronic records of all the data collected are also available.	Records of temperature above the seal pots and corrective action taken are logged whenever an alarm sounds. Electronic records of all the data collected are also available.

	Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
QA/QC	The amperage meter shall be maintained pursuant to the manufacturer's specifications.	The amperage meter shall be maintained pursuant to the manufacturer's specifications.	The amperage meter shall be maintained pursuant to the manufacturer's specifications.	The thermocouples shall be maintained pursuant to manufacturer's specifications.

CAM PLAN FOR EMISSION POINT AF-002
#2 BRINKS SCRUBBER

	Indicator No. 1	Indicator No. 2
Indicator	Differential pressure across the scrubber.	Amperage on the recirculation pumps of the scrubber.
Measurement Approach	Differential pressure will be continuously measured with a differential pressure gauge to ensure adequate water flow and proper operation of the scrubber. An alarm will sound when differential pressure approaches the indicator value.	Amperage of the recirculation pumps will be continuously measured by an amperage meter to ensure proper circulation of the scrubber solution. An alarm will sound when a low amperage level is indicated.
Monitoring Methods and Location	Pressure taps are located upstream and downstream of the scrubber's packing material.	The amperage meter is physically connected to the recirculation pumps' electrical system and data is electronically recorded.
Indicator Range	An excursion is defined as any 3-hour average differential pressure value less than 5.5 inches of water. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any consecutive 3-hour period during plant operation when the amperage values of both pumps are below 5 amps at one time. Excursions trigger an inspection, corrective action, and reporting.
Data Collection Frequency	Pressure differential is monitored and recorded continuously.	Amperage is monitored and recorded continuously.
Averaging Period	Readings are taken every 15 minutes and averaged for the hour. A subsequent 3-hour average is then used for determining an excursion.	Readings are taken every 15 minutes and averaged for the hour. The three-hour average is then used for determining an excursion.
Recordkeeping	Pressure differential is electronically recorded on a continuous basis and hourly data shall be made available.	Records of the amperage value and corrective action taken are generated whenever an alarm sounds indicating that there are no pumps online. Electronic records of all the data collected are also available.
QA/QC	The pressure gauges are calibrated quarterly. Pressure taps are checked for plugging daily. The alarm is tested quarterly. The gauges shall have a minimum accuracy of 0.5 inches of water.	The amperage meter shall be maintained pursuant to the manufacturer's specifications.

CAM PLAN FOR EMISSION POINT AF-003
#3 BRINKS SCRUBBER

	Indicator No. 1	Indicator No. 2
Indicator	Differential pressure across the scrubber.	Amperage on the recirculation pumps of the scrubber.
Measurement Approach	Differential pressure will be continuously measured with a differential pressure gauge to ensure adequate water flow and proper operation of the scrubber. An alarm will sound when differential pressure approaches the indicator value.	Amperage of the recirculation pumps will be continuously measured by an amperage meter to ensure proper circulation of the scrubber solution. An alarm will sound when a low amperage level is indicated.
Monitoring Methods and Location	Pressure taps are located upstream and downstream of the scrubber's packing material.	The amperage meter is physically connected to the recirculation pumps' electrical system and data is electronically recorded.
Indicator Range	An excursion is defined as any 3-hour average differential pressure value less than 5.5 inches of water. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any consecutive 3- hour period during plant operation when the amperage values of both pumps are below 5 amps at one time. Excursions trigger an inspection, corrective action, and
Data Collection Frequency	Pressure differential is monitored and recorded continuously in the DCS system.	Amperage is monitored and recorded continuously in the DCS
Averaging Period	Readings are taken every 15 minutes and averaged for the hour. A subsequent 3-hour average is then used for determining an excursion.	Readings are taken every 15 minutes and averaged for the hour. The three-hour average is then used for determining an excursion.
Recordkeeping	Pressure differential is electronically recorded on a continuous basis and hourly data shall be made available.	Records of the amperage value and corrective action taken are generated whenever an alarm sounds indicating that the amperage is below 5 amps. Electronic records of all the data collected are also available.
QA/QC	The pressure gauges are calibrated quarterly. Pressure taps are checked for plugging daily. The alarm is tested quarterly. The gauges shall have a minimum accuracy of 0.5 inches of water.	The amperage meter shall be maintained pursuant to the manufacturer's specifications.

CAM PLAN FOR EMISSION POINT AF-004
COMBINED STACK (#4 FINISHING TRAIN)
(No. 4 ANF Finishing Train Pre-Cooler, No. 4 ANF Finishing Train Cooler, No. 4 ANF Finishing Train Pre-Dryer, No. 4 ANF Finishing Train Dryer)

	FLY ASH SCRUBBERS
	Indicator No. 1
Indicator	Water level of each fly ash scrubber sump.
Measurement Approach	Manually measure the water level using the staff gauge located in each sump to ensure adequate water is entrapped with the entering air for PM removal.
Monitoring Methods and Location	A graduated staff gauge is located in the sump of each scrubber.
Indicator Range	An excursion is defined as a water level less than 10.5 inches on the staff gauge. Excursions trigger an inspection, corrective action, and reporting.
Data Collection Frequency	Water level is manually measured once per day.
Averaging Period	Not Applicable. (Instantaneous measurement)
Recordkeeping	Water level height recorded manually once per day.
QA/QC	The staff gauge is checked for accuracy, cleaned as required, and repaired/replaced, if necessary, on a quarterly basis. Measurements should be accurate within ± 0.5 inches.

CAM PLAN FOR EMISSION POINT AF-005
IGAN FINISHING TRAIN

	Indicator No. 1	Indicator No. 2
Indicator	Differential pressure across the scrubber.	Amperage on the recirculation pumps of the scrubber.
Measurement Approach	Differential pressure will be continuously measured with a differential pressure gauge to ensure adequate water flow and proper operation of the scrubber. An alarm will sound when differential pressure approaches the indicator value.	Amperage of the recirculation pumps will be continuously measured by an amperage meter to ensure proper circulation of the scrubber solution. An alarm will sound when a low amperage level is indicated.
Monitoring Methods and Location	Pressure taps are located upstream and downstream of the scrubber's packing material.	The amperage meter is physically connected to the recirculation pumps' electrical system and data is electronically recorded.
Indicator Range	An excursion is defined as any 3-hour average differential pressure value less than 20 inches of water. Excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as any consecutive 3-hour period during plant operation when the amperage values of both pumps are below 5 amps at one time. Excursions trigger an inspection, corrective action, and reporting.
Data Collection Frequency	Pressure differential is monitored and recorded continuously in the DCS system.	Amperage is monitored and recorded continuously in the DCS system.
Averaging Period	Readings are taken at least every minute and averaged over 15 minutes. Then, four 15-minute readings are averages to get a 1-hour reading. A subsequent 3-hour average is then used for determining an excursion.	Readings are taken every 15 minutes and averaged for the hour. The 3-hour average is then used for determining an excursion.
Recordkeeping	Pressure differential is electronically recorded on a continuous basis and hourly data shall be made available.	Records of the amperage value and corrective action taken are generated whenever an alarm sounds indicating that the amperage is below 5 amps. Electronic records of all the data collected are also available.
QA/QC	The pressure gauges are calibrated quarterly. Pressure taps are checked for plugging daily. The alarm is tested quarterly. The gauges shall have a minimum accuracy of 0.5 inches of water.	The amperage meter shall be maintained pursuant to the manufacturer's specifications.

APPENDIX D

CEMS Plan/CAM Plan for the Nitric Acid Plants

CEMS PLAN/CAM PLAN FOR AE-003, AE-005, AE-006, and AE-007

(Per the provisions of the 2011 negotiated Consent Decree between EPA and Terra, the following CEMS Plan, which was contained in Attachment C of the Consent Decree, will serve as the CAM Plan for the Nitric Acid Plants.)

TERRA NITRIC ACID PLANT CEMS PLAN
U.S. et. al. v. Terra Industries, Inc., et. al.

CEMS Plan for NO_x Emissions
Terra Industries Inc., Terra Nitrogen, Limited Partnership, Terra International (Oklahoma) Inc., Port Neal Corporation, and Terra Mississippi Nitrogen, Inc.
Covered Nitric Acid Plants

Principle

This CEMS Plan is the mechanism for determining compliance with the Short-Term NO_x Limit and Long-Term NO_x Limit applicable to each Covered Nitric Acid Plant as specified in the Consent Decree and is used to evaluate the compliance status with the NSPS NO_x limits. The methodology described in this CEMS Plan will provide a continuous indication of compliance with the above-referenced NO_x emission limits established in the Consent Decree by accurately determining the emission rate in terms of pounds of NO_x emitted per ton of 100% Nitric Acid Produced (lb/ton) as a rolling 3-hour average and a rolling 365-day average. The CEMS will utilize equipment to measure stack NO_x concentration and the stack volumetric flow rate. From this data, real-time, accurate, and quality controlled measurements of the mass NO_x emission rate can be obtained.

Definitions

Terms used in this CEMS Plan that are defined in the Clean Air Act ("CAA") or in Federal or state regulations promulgated pursuant to the CAA shall have the meaning assigned to them in the CAA or such regulations, unless otherwise defined in the Consent Decree. The terms used in this CEMS Plan that are defined in the Consent Decree shall have the meaning assigned to them therein. The following definitions specifically apply for purposes of this CEMS Plan.

- "CEMS" or "Continuous Emission Monitoring System" shall mean the total equipment, required under this CEMS Plan, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

- "Day," "day," or "calendar day" shall mean a calendar day.

- "Long-Term NO_x Limit" shall mean a 365-day rolling average NO_x emission limit (rolled daily) expressed as pounds of NO_x emitted per ton of 100% Nitric Acid Produced ("lb/ton"); compliance with the Long-Term NO_x Limit shall be calculated in accordance with this CEMS Plan. The Long-Term NO_x Limit applies at all times, including during periods of Startup, Shutdown, or Malfunction.

- "Malfunction" shall mean, consistent with 40 C.F.R. § 60.2, any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment,

or a process to operate in a normal or usual manner, but shall not include failures that are caused in whole or in part by poor maintenance or careless operation.

- "NSPS NO_x Limit" shall mean the NO_x emission limit expressed as 1.5 kg of NO_x per metric ton of 100% Nitric Acid Produced (3 lb per ton) specified at 40 C.F.R. § 60.72(a)(1).
- "NO_x" shall mean the pollutant nitrogen oxides. For the purposes of calculating mass emission rates, NO_x has a molecular weight of 46.0055 lb/lb-mol.
- "NO_x stack analyzer" shall mean that portion of the CEMS that senses NO_x and generates an output proportional to the NO_x concentration.
- "100% Nitric Acid Produced" shall mean the quantity of a nitric acid product manufactured by a Nitric Acid Plant multiplied by the concentration of actual nitric acid in the product. For example, if a Nitric Acid Plant produces 100 tons of a 54% nitric acid product, this equals 54 tons of 100% Nitric Acid Produced.
- "One-hour period" and "1-hour period" shall mean any 60-minute period commencing on the hour.
- "One-minute measurement" shall mean any single measurement or the arithmetic average of multiple measurements of a parameter during a one-minute period on-the-clock.
- "Operating Periods" shall mean periods during which a Covered Nitric Acid Plant is producing nitric acid and NO_x is emitted, including periods of Startup, Shutdown and Malfunction.
- "Short-Term NO_x Limit" shall mean a 3-hour rolling average NO_x emission limit (rolled hourly) expressed in terms of pounds of NO_x emitted per ton of 100% Nitric Acid Produced ("lb/ton"); compliance with the Short-Term NO_x Limit shall be calculated in accordance with this CEMS Plan. The Short-Term NO_x Limit does not apply during periods of Startup, Shutdown, or Malfunction.
- "Shutdown" shall mean the cessation of nitric acid production operations of a Covered Nitric Acid Plant for any reason. Shutdown begins at the time the feed of ammonia to the Covered Nitric Acid Plant ceases and ends 3 hours later.
- "Stack flowmeter" shall mean that portion of the CEMS that senses the volumetric flow rate and generates an output proportional to that flow rate.
- "Startup" shall mean the process of initiating nitric acid production operations of a Covered Nitric Acid Plant. Startup begins 1 hour prior to the initiation of the feed of ammonia to the Covered Nitric Acid Plant and ends no more than 5 hours after such initiation of the feed of ammonia.
- "Ton" or "tons" shall mean short ton or short tons. One Ton equals 2,000 pounds.

Emissions Monitoring

Emissions monitoring under this CEMS Plan will be done using a NO_x stack analyzer and a stack flowmeter on each Covered Nitric Acid Plant. Except for periods of CEMS breakdowns, analyzer malfunctions, repairs, and required quality assurance or quality control activities

(including calibration checks and required zero and span adjustments), Terra will conduct continuous monitoring pursuant to this CEMS Plan at each Covered Nitric Acid Plant during all Operating Periods as follows:

- Once every minute, the NO_x stack analyzer will measure the stack NO_x concentration, in parts per million by volume, dry basis (ppmvd) and the stack flowmeter will measure the volumetric flow rate in dry standard cubic feet per minute (DSCFM)[1].

- For every 1-hour period (60-minute period commencing on the hour), the CEMS will reduce the 60 one-minute measurements generated by each analyzer by taking the arithmetic average of the previous 60 measurements during the 1-hour period. This data will be used to calculate the 3-hour average NO_x emission rate.

Backup Monitoring Procedure for Long-Term NO_x Limit

In the event that the NO_x stack analyzer and/or stack flowmeter is/are not available or is/are out-of-control, Terra will implement the following backup monitoring procedure. The resulting data will be used to calculate the 365-day average NO_x emission rate.

- Other than as specified below for a CEMS outage or out-of-control period less than 24 consecutive hours, Terra will comply with the following requirements to fill in data gaps in the array:

    - Exit stack gas will be sampled and analyzed for NO_x at least once every three (3) hours, during all Operating Periods. Sampling will be conducted by making physical measurements of the NO_x concentration in the gas stream to the main stack using alternative/non-CEMS methods (*e.g.*, through the use of a portable analyzer or non-certified NO_x stack analyzer). The reading obtained will be substituted for the 180 (or less) one-minute measurements that would otherwise be utilized if the CEMS were operating normally. Alternatively, Terra may conduct the required sampling and analysis using a redundant certified NO_x analyzer.

    - Stack volumetric flow rate will be estimated using engineering judgment.

- During required quality assurance or quality control activities (including calibration checks and required zero and span adjustments) of the CEMS and stack flowmeter, Terra may utilize the previous calendar day average value to fill in the data gaps.

- If any one or more than one of the CEMS or stack flowmeter is/are not operating for a period of less than 24 consecutive hours due to breakdowns, malfunctions, repairs, or out-of-control period of the same, Terra may utilize the previous calendar day average value recorded for each to fill in the data gaps.

1 For the purposes of the calculations under this CEMS Plan, as-is volumetric flow rate measurements will be assumed to be dry. However, Terra may adjust for any moisture contained in the stack gas if the Covered Nitric Acid Plant is equipped with a continuous moisture analyzer.

Production Data

Following each calendar day at each Covered Nitric Acid Plant, Terra will record the quantity of nitric acid produced during that day and the average strength of the nitric acid produced during that day. From this information, Terra will calculate the 100% Nitric Acid Produced for that day, in units of tons per day.

Conversion Factor

During each performance test for each Covered Nitric Acid Plant required under Paragraph 15 of the Consent Decree, Terra will develop a conversion factor, in units of lb/ton of 100% Nitric Acid Produced per ppmvd consistent with 40 C.F.R. § 60.73(b).

Emissions Calculations

Rolling 3-Hour Average

Compliance with the Short-Term NO_x Limit shall be based on a rolling 3-hour average (rolled hourly). For purposes of calculating a rolling 3-hour average NO_x emission rate, the CEMS will maintain an array of the 3 most recent and contiguous 1-hour period average measurements of stack NO_x concentration. Every hour, it will add the most recent 1-hour period average measurement to the array and exclude the oldest 1-hour period average measurement. Data generated using the backup monitoring procedure, specified above, need not be included in this calculation.

The rolling 3-hour average lb/ton NO_x emission rate (E_{3hravg}) will then be calculated every hour using Equation 1.

Equation 1:

$$E_{3hravg} = \frac{K \cdot \sum_{i=1}^{3} \cdot C_{NOx\,i}}{3}$$

Where:

C_{NOxi} = Arithmetic average of 60 one-minute measurements of stack NO_x concentration, parts per million by volume, dry basis (ppmvd) in a 1-hour period.

K = Conversion factor determined during most recent NO_x performance test (lb/ton of 100% Nitric Acid Produced per ppm)

E_{3hravg} = 3-hour average lb NO_x per ton 100% Nitric Acid Produced

Rolling 365-Day Average

Compliance with the Long-Term NO_x Limit shall be based on a rolling 365-day average (rolled daily). For the purposes of calculating the 365-day average NO_x emission rate each calendar day at each Covered Nitric Acid Plant, Terra will maintain an array of the mass emissions (lb/day) of NO_x (calculated using Equation 2) and the 100% Nitric Acid Produced for that day (tons/day) and the preceding 364 days. Each subsequent day, the data from that day will be added to the array, and the data from the oldest day will be excluded.

For the purposes of calculating daily mass emission rate, the CEMS will maintain an array of each one-minute measurement of the NO_x concentration (ppmvd) at the exit stack and each one-minute measurement of volumetric flow rate (DSCFM) of the exit stack over each day. In the event that one or more of the CEMS and stack flowmeter is/are not available, Terra will use the backup monitoring procedure, specified above, to fill in the data gaps.

Following each calendar day, the daily NO_x mass emissions will be calculated using Equation 2.

Equation 2:

$$M_{NO_x Day} = 1.193 \times 10^{-7} \cdot \sum_{i=1}^{n} Q_{Stack\ i} \cdot C_{NOx\ i}$$

Where:

$C_{NOx\,i}$ = One-minute measurement of stack NO_x concentration, ppmvd, at interval "*i*"

$Q_{Stack\,i}$ = One-minute measurement of stack volumetric flow rate, DSCFM, at interval "*i*"

1.193×10^{-7} = Conversion factor in units of pounds per standard cubic foot (lb/SCF) NO_x per ppm

$M_{NO_x Day}$ = Mass emissions of NO_x during a calendar day, lb

n = Number of minutes of Operating Period in a calendar day

Following each calendar day, the NO_x emission rate as lb/ton, averaged over a rolling 365-day period ($E_{365-Day\ Avg}$) will be calculated using Equation 3.

Equation 3:

$$E_{365-Day\ Avg} = \frac{\sum_{d=1}^{365} M_{NO_x Day\ d}}{\sum_{d=1}^{365} P_d}$$

Where:

$M_{NO_x Day\ d}$ = Mass emissions of NO_x during a calendar day "*d*", lb

P_d = 100% Nitric Acid Produced during a calendar day "*d*", tons

$E_{365-Day\ Avg}$ = 365-day rolling average lb NO_x per ton of 100% Nitric Acid Produced

Rounding of Numbers resulting from Calculations

Upon completion of the calculations, the final numbers shall be rounded as follows:

E_{3hravg} : Rounded to the nearest tenth.

$E_{365-Day\ Avg}$: Rounded to the nearest hundredth.

The numbers "5"-"9" shall be rounded up, and the numbers "1"-"4" shall be rounded down. Thus, "1.05" shall be rounded to "1.1", and "1.04" shall be rounded to "1.0".

Compliance with Consent Decree NO_x Limits

Short-Term NO_x Limits

The Short-Term NO_x Limits do not apply during periods of Startup, Shutdown, or Malfunction. During all other Operating Periods at a Covered Nitric Acid Plant, Terra will be in compliance with the Short-Term NO_x Limit specified in the Consent Decree if E_{3hravg} does not exceed 1.0 lb of NO_x per ton of 100% Nitric Acid Produced. If Terra contends that any 3-hour rolling average emission rate is in excess of 1.0 lb/ton due to the inclusion of hours of Startup, Shutdown or Malfunction in the 3-hour period, Terra shall recalculate E_{3hravg} to exclude measurements recorded during the period(s) of the claimed Startup, Shutdown or Malfunction(s). Nothing in this CEMS Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a Covered Nitric Acid Plant would have been in compliance with the Short-Term Limit if the appropriate performance test or compliance procedure had been performed.

NSPS NO_x Limits

The NSPS NO_x Limit does not apply during periods of Startup, Shutdown, or Malfunction. During all other Operating Periods at a Covered Nitric Acid Plant, Terra will be in compliance with the NSPS Limit if E_{3hravg} does not exceed 3.0 lb of NO_x per ton of 100% Nitric Acid Produced. If Terra contends that any 3-hour rolling average emission rate is in excess of 3.0 lb/ton due to the inclusion of hours of Startup, Shutdown or Malfunction in the 3-hour period, Terra shall recalculate E_{3hravg} to exclude measurements recorded during the period(s) of the claimed Startup, Shutdown or Malfunction(s). Nothing in this CEMS Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a Covered Nitric Acid Plant would have been in compliance with the NSPS NO_x Limit if the appropriate performance test or compliance procedure had been performed.

Long-Term NO_x Limits

Terra will be in compliance with the Long-Term NO_x Limit specified in the Consent Decree if $E_{365-Day\ Avg}$ does not exceed 0.60 lb of NO_x per ton of 100% Nitric Acid Produced. The Long-Term NO_x Limit applies at all times, including during periods of Startup, Shutdown, or Malfunction.

Retention of All CEMS Data, including Data during Startup, Shutdown, and Malfunction

Terra will retain all data generated by the NO_x analyzer and stack flowmeter, including all data generated during Startup, Shutdown, and/or Malfunction ("SSM") at each Covered Nitric Acid Plant in accordance with Section XI of the Consent Decree.

Analyzer Specifications

The NO_x stack analyzers and the stack flowmeter required under this CEMS Plan at each Covered Nitric Acid Plant will meet the following specifications:

Table 1

Analyzer	Parameter	Location	Range/Span Value
NO_x Stack Analyzers	NO_x, ppm by volume, dry basis	Stack	Dual range: Normal: 0 – 200 ppm NO_x SSM: 0 – 5000 ppm NO_x
Stack Flowmeter	Volumetric flow rate, SCFM	Stack	0 to 125% of the maximum expected volumetric flow rate

The NO_x stack analyzers will meet all applicable requirements of 40 C.F.R. §§ 60.11, 60.13, 40 C.F.R. Part 60, Appendix B, Performance Specification 2, and the Quality Assurance and Quality Control Procedures in 40 C.F.R. Part 60, Appendix F, Procedure 1. It should be noted, however, that the daily drift test requirement at 40 C.F.R. § 60.13(d) and the requirements of Appendix F apply only to the normal range of the NO_x stack analyzers. The SSM range of the NO_x stack analyzers will be evaluated once each calendar quarter to verify accuracy.

The stack flowmeters will meet 40 C.F.R. Part 60, Appendix B, Performance Specification 6 and will be evaluated once each calendar quarter and during the RATA of the NO_x stack analyzers to verify accuracy.

Compliance with the NSPS: 40 C.F.R. Part 60, Subpart G

In addition to the requirements in this CEMS Plan, Terra also will comply with all of the requirements of the NSPS relating to monitoring at each Covered Nitric Acid Plant except that, pursuant to 40 C.F.R. § 60.13(i), this CEMS Plan will supersede the following provisions of 40 C.F.R. Part 60, Subpart G:

- The requirement at 40 C.F.R. § 60.73(a) that the NO_x stack analyzers have a span value of 500 ppm. In lieu of this, Terra will utilize the span values specified in Table 1 of this CEMS Plan; and

The requirement at 40 C.F.R. § 60.73(a) that pollutant gas mixtures under Performance Specification 2 and for calibration checks under 40 C.F.R. § 60.13(d) be nitrogen dioxide (NO_2). Terra will use calibration gases containing NO and/or NO_2 as appropriate to assure accuracy of the NO_x stack analyzers except where verified reference cells are used in accordance with Performance Specification 2.