

**STATE OF MISSISSIPPI  
AIR POLLUTION CONTROL  
TITLE V PERMIT**

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

Columbus Brick Company  
114 Brickyard Road  
Columbus, Mississippi  
Lowndes County

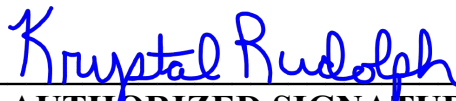
has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi 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: May 5, 2020**

**Permit Modified: December 15, 2020**

**Effective Date: As specified herein.**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: April 30, 2025**

**Permit No.: 1680-00008**

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## SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance 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 This 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 provisions listed below.

(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 3 or more years. Such a reopening shall be completed no later than 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 emission 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 this permit shall follow the same procedures as apply to initial permit issuance and shall only affect 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 DEQ at least 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 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 This 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 permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

- (a) For purposes of fee assessment and collection, the permittee shall elect for actual 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. 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.

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

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee.

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

- (c) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time.

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

- (d) The fee shall be due September 1 of each year. By July 1 of each year, the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due.

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

- (e) If in disagreement with the calculation or applicability of the Title V permit 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.C.)

- 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 where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements

specifically identified previously are not applicable to the source.

(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 pursuant to Section 112(r) of the Act to register such a plan.

(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 which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of 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. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

- (a) the changes are not modifications under any provision of Title I of the 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 (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the

notification includes:

- (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 the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

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

- 1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 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 Regulations 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 "[a]ny 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 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, or 40 CFR 51.166; or
  - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166;
- (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 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or
- (f) any change in ownership of the stationary source.

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

1.21 Any change in ownership or operational control must be approved by the Permit Board.

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

1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source'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 Emergency Air Pollution Episode Alert imposed by the Executive Director 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 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 provision with respect to emergencies:

- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
  - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - (2) the permitted facility was at the time being properly operated;
  - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
  - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of

an emergency has the burden of proof.

- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

1.25 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 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 noncompliance, and the corrective actions taken and;
    - (v) That as soon as practicable but no later than 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) Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
- (1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups 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 this regulation, 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups 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 startup or shutdown, see the upset requirements above.

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

- 1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, 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  |
|----------------|--|
| AA-001         | 11.25 MMBTU/hr natural gas-fired Tunnel Kiln No. 1 controlled by dry limestone adsorber (DLA) #1. (DLA #1 controls emissions from Kilns 1 and 2.)    |
| AA-002         | 11.25 MMBTU/hr natural gas-fired Tunnel Kiln No. 2 controlled by DLA #1. (DLA #1 controls emissions from Kilns 1 and 2.)                             |
| AA-003         | 36 MMBTU/hr natural gas-fired Tunnel Kiln No. 3 controlled by DLA #2.  |
| AA-004         | Dryer No. 1 and No. 2 for Tunnel Kiln No. 1, heated by exhaust from the cooling section of the kiln  |
| AA-005         | Dryer No. 3 for Tunnel Kiln No. 2, heated by exhaust from the cooling section of the kiln  |
| AA-006         | Dryer No. 4 for Tunnel Kiln No. 3, heated by exhaust from the cooling section of the kiln  |
| AA-007         | Fugitive Emissions from the clay unloading and processing areas, grinding and screening areas, grog processing area, and other miscellaneous sources |

## 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) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups 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 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.)

B. Emission Point Specific Emission Limitations & Standards

| Emission Point(s)          | Applicable Requirement   | Condition Number(s) | Pollutant/Parameter  | Limit/Standard   |
|----------------------------|--|---------------------|----------------------|--|
| Facility-wide              | 11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).   | 3.B.1               | PM (filterable only) | $E=4.1*p^{0.67}$                                       |
| AA-001<br>AA-002<br>AA-003 | 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).  | 3.B.2               | PM (filterable only) | $E=0.8808*I^{-0.1667}$                                 |
|                            | 11 Miss. Admin. Code Pt. 2, R. 1.4.B(1).   | 3.B.3               | SO <sub>2</sub>      | 500 or 2,000 ppm (volume)                              |
|                            | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Permit to Construct issued December 26, 2019<br><b>(MACT Avoidance Limit)</b>                      | 3.B.4               | HAP                  | Install, operate, and maintain dry limestone adsorbers |
|                            | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Title V Operating Permit issued July 1, 2014   | 3.B.5               | Fuel restriction     | Natural gas only                                       |
|                            | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Permit to Construct issued December 26, 2019<br><b>(MACT Avoidance Limits)</b>                     | 3.B.6               | HCl                  | 9.9 tons per year (12-month rolling total)             |
|                            |  |                     | HF                   | 9.9 tons per year (12-month rolling total)             |
|                            | 40 CFR Part 64 – Compliance Assurance Monitoring (CAM)<br>40 CFR 64.2(a), CAM  | 3.B.7               | HCl<br>HF            | CAM Applicability                                      |
| AA-007                     | 40 CFR 60, Subpart OOO<br><br>Standards of Performance for Nonmetallic Mineral Processing Plants<br><br>40 CFR 60.670(a)(1), (e), and (f) and Table 1, Subpart OOO | 3.B.8               | PM                   | Applicability  |
|                            | 40 CFR 60.672(b), (e)(1), and Table 3, Subpart OOO   | 3.B.9               |                      |  |

3.B.1 Except as otherwise specified herein, no person shall cause, permit, or allow the emission of particulate matter in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship

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

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.

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

- 3.B.2 For Emission Points AA-001, AA-002, and AA-003, the maximum permissible emission of ash and/or particulate matter from installations equal to or greater than 10 million BTU per hour heat input but less than 100 million BTU per hour heat input shall not exceed an 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.3 Except as otherwise specified, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 2,000 ppm (volume) from any process equipment in existence on January 25, 1972 (Emission Point AA-002), or in excess of 500 ppm (volume) from any process equipment constructed after January 25, 1972 (Emission Points AA-001 and AA-003). The 500 ppm (volume) requirement shall apply for equipment constructed after January 25, 1972, unless otherwise provided by the Commission.

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

- 3.B.4 The permittee shall install, maintain, and operate a dry limestone adsorber(s) (DLA) for control of Hydrogen Fluoride (HF) and Hydrochloric Acid (HCl) from Emission Points AA-001, AA-002, and AA-003. The permittee shall operate the dry limestone adsorbers at all times the kilns are in operation, except during startups, shutdowns, and malfunctions.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued December 26, 2019 (MACT Avoidance Limit))

- 3.B.5 For Emission Points AA-001, AA-002, and AA-003, the kilns shall be limited to burning natural gas only.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). as established in the Title V Operating Permit issued July 1, 2014)

- 3.B.6 For Emission Points AA-001, AA-002, and AA-003, the permittee shall limit the total emissions of HCl and HF to no more than 9.9 tons per year each, as determined on a monthly basis for each rolling 12-month period. These limits include emissions during periods of startup, shutdown, and malfunction. For purposes of demonstrating compliance with these limits, the first month of the 12-month period shall be January 2020.

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



issued December 26, 2019 (MACT Avoidance Limits))

- 3.B.7 For Emission Points AA-001, AA-002, and AA-003, 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)

- 3.B.8 For Emission Point AA-007, the permittee is subject to all applicable provisions of the Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO and the General Provisions, 40 CFR 60, Subpart A, except as noted in Table 1 to Subpart OOO.

(Ref.: 40 CFR 60.670(a)(1), (e), and (f) and Table 1, Subpart OOO)

- 3.B.9 For Emission Point AA-007, an affected facility subject to Subpart OOO requirements includes all crushers, grinding mills, screening operations, bucket elevators, belt conveyors, and storage bins. For any transfer points on a conveyor belt or for any other affected facility located inside a building, the fugitive emissions from the building openings (except for vents) must not exceed seven (7) percent opacity.

For affected facilities not located in an enclosed building, the permittee shall:

- (a) For equipment constructed after August 31, 1983, but before April 22, 2008, the permittee shall not allow fugitive emissions from any grinding mills, screening operations, transfer points on belt conveyors, or storage bins to exceed ten (10) percent opacity and for crushers the opacity limit shall not exceed fifteen (15) percent.
- (b) For equipment constructed after April 22, 2008, the permittee shall not allow fugitive emissions from any grinding mills, screening operations, transfer points on belt conveyors, or storage bins to exceed seven (7) percent opacity and for crushers the opacity limit shall not exceed twelve (12) percent.

(Ref.: 40 CFR 60.672(b), (e)(1), and Table 3, Subpart OOO)

C. Insignificant and Trivial Activity Emission Limitations & Standards

| Applicable Requirement                      | Condition Number(s) | Pollutant/Parameter     | Limit/Standard |
|---|---------------------|-------------------------|----------------|
| 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a). | 3.C.1               | PM<br>(filterable only) | 0.6 lbs/MMBTU  |
| 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).    | 3.C.2               | SO <sub>2</sub>         | 4.8 lbs/MMBTU  |

3.C.1 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.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 million BTU 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                       |
|----------------------------|--|-----------------------|---------------------------------------|--------------------------------------|
| AA-001<br>AA-002<br>AA-003 | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Permit to Construct issued December 26, 2019 | 3.D.1                 | Push rate and DLA Inlet Temperature   | Operating conditions during startups |
| 3.D.2                      |  | DLA Inlet Temperature | Operating conditions during shutdowns |                                      |

3.D.1 For Emission Points AA-001, AA-002, and AA-003, the permittee shall establish the minimum inlet temperature for each DLA and a maximum startup push rate for each kiln that shall not be exceeded until the minimum inlet temperature is reached. During a startup, the permittee may bypass the DLA until the minimum inlet temperature is reached; however, the permittee may not exceed the maximum startup push rate during this time.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Permit to Construct issued December 26, 2019)

3.D.2 For Emission Points AA-001, AA-002, and AA-003, during shutdowns, kiln exhaust shall continue to be vented to the DLA until the kiln exhaust temperature falls below the minimum DLA inlet temperature. The permittee shall cease pushing loaded kiln cars into the kiln once the kiln exhaust temperature falls below the minimum DLA inlet temperature.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), as established in the Permit to Construct issued December 26, 2019)

## 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 permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:
- (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), & (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 information the following:

- (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 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 11 Miss. Admin. Code Pt. 2, R. 6.2.E.

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

- 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. Said 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 versions, or their equivalents approved by the DEQ and 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).)

**B. Specific Monitoring and Recordkeeping Requirements**

| Emission Point(s)          | Applicable Requirement                           | Condition Number | Pollutant/Parameter Monitored | Monitoring/Recordkeeping Requirement  |
|----------------------------|--|------------------|-------------------------------|---|
| AA-001<br>AA-002<br>AA-003 | Permit to Construct issued December 26, 2019     | 5.B.1            | Fuel & Fired Brick Throughput | Recordkeeping   |
|                            |  | 5.B.2            | HAP                           | Control device inspection and maintenance requirements  |
|                            |  | 5.B.3            | HCl & HF                      | Performance test  |
|                            |  | 5.B.4            | DLA Pressure Drop             | Install pressure monitors for measuring pressure drop across each DLA   |
|                            |  | 5.B.5            | Startup/Shutdown              | Recordkeeping   |
|                            |  | 5.B.6            | HCl<br>HF                     | Monthly and 12-month rolling total emissions  |
| AA-007                     | 40 CFR 60.675(c)(1) and (3) and (d), Subpart OOO | 5.B.7            | Opacity                       | Visible emissions evaluation  |
|                            | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).   | 5.B.8            |                               | Develop monitoring plan to comply with Subpart OOO  |
| AA-001<br>AA-002<br>AA-003 | 40 CFR 64.3(a) and (b), 64.6(c), CAM             | 5.B.9            | HCl<br>HF                     | Continuously measure pressure drop across each DLA and record value once daily<br><br>Monitor DLA limestone feeder rates daily, DLA hopper and storage bin levels daily, and maintain records of limestone grade and source |
|                            | 40 CFR 64.7(b) and (c), CAM                      | 5.B.10           |                               | Operation and maintenance requirements for monitoring system(s)   |
|                            | 40 CFR 64.7(d), CAM                              | 5.B.11           |                               | Corrective Action response to an excursion/exceedance of a CAM indicator  |
|                            | 40 CFR 64.8, CAM                                 | 5.B.12           |                               | Upon request by DEQ, develop a Quality Improvement Plan (QIP)   |
|                            | 40 CFR 64.9(b), CAM                              | 5.B.13           |                               | Maintain CAM records as specified   |
| AA-001<br>AA-002<br>AA-003 | 40 CFR 63.1(b)(3) and 63.10(b)(3), Subpart A     | 5.B.14           | HAP                           | Recordkeeping requirement for MACT applicability determinations   |

- 5.B.1 For Emission Points AA-001, AA-002, and AA-003, the permittee shall keep records on a monthly basis, which consist of the quantity of natural gas used and tons of fired bricks manufactured.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.2 For Emission Points AA-001, AA-002, and AA-003, the permittee shall perform inspections and maintenance, as needed, on each DLA in accordance with the manufacturer's recommendations. The permittee shall keep readily accessible records of the inspections and all maintenance activities completed on each DLA, as well as a copy of the manufacturer's maintenance recommendations.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.3 For Emission Points AA-001, AA-002, and AA-003, the permittee shall conduct a performance test for HF and HCl in accordance with the test methods required in Table 4 of 40 CFR 63, Subpart JJJJ, by June 23, 2020. During the performance test, the kilns shall be operated as close to maximum capacity as operating conditions allow. Emission Points AA-001 and AA-002 must be operated concurrently during the testing since they vent through a common control device. The tests results shall be used to develop controlled emission factors for HF and HCl in terms of pounds of pollutant per ton of fired brick. Subsequent performance tests shall be conducted within five (5) years of the previous performance test.

During the performance tests, the permittee shall monitor and record the pressure drop across each DLA, the limestone feed rate to each DLA, and fired brick throughput (in tons per hour) for each test run. The permittee shall use this data to establish a minimum pressure drop across each DLA and minimum limestone feed rate per ton of fired product to ensure proper operation of each DLA.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.4 For Emission Points AA-001, AA-002, and AA-003, the permittee shall install, operate, and maintain pressure monitors for continuously measuring the pressure drop across each DLA. The pressure monitors shall consist of gauges with a minimum measurement sensitivity of 0.5 inch of water or transducers with a minimum measurement sensitivity of 1 percent of the pressure range. The pressure monitors and all components shall be inspected at least monthly and calibrated in accordance with the manufacturer's written instructions. Sufficient parts shall be maintained on site for routine repairs of the monitoring equipment.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.5 For Emission Points AA-001, AA-002, and AA-003, to comply with Conditions 3.D.1 and 3.D.2, the permittee shall comply with the written procedures for kiln startups and shutdowns. These procedures shall specify the maximum startup push rate required to



bring the kiln to proper operating temperature and the minimum DLA inlet temperature required for proper operation and control. During startups and shutdowns, the permittee shall record the following information:

- (a) The date, time, and duration of each startup and shutdown period;
- (b) For periods of startup, the kiln push rate and kiln exhaust temperature prior to the time the kiln exhaust reaches the minimum DLA inlet temperature;
- (c) For periods of shutdown, the kiln push rate and kiln exhaust temperature after the time the kiln exhaust falls below the minimum DLA inlet temperature.

The permittee shall also develop emission factors for periods of startup, shutdown, and malfunction when emissions are not controlled by the respective DLA. The startup, shutdown, and malfunction procedures and related records shall be maintained on site and made readily available for review upon request by DEQ personnel.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.6 For Emission Points AA-001, AA-002, and AA-003, the permittee shall use the monthly tons of fired brick recorded in accordance with Condition 5.B.1 and the emission factors developed in accordance with Conditions 5.B.3 and 5.B.6 to determine the monthly emissions of HF and HCl. To demonstrate compliance with the permitted emission limits the permittee shall calculate the 12-month rolling total emissions on a monthly basis for each consecutive 12-month period.

(Ref.: Permit to Construct issued December 26, 2019)

- 5.B.7 For Emission Point AA-007, the permittee shall comply with the applicable opacity standards for each affected facility (i.e., crusher, transfer point, conveyor belt, etc.) within one (1) year of permit issuance using EPA Reference Method 9 from 40 CFR 60, Appendix A-4 with the following additions:

- (a) The minimum distance between the observer and the emission source shall be 15 feet.
- (b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources. The required observer position relative to the sun per Method 9 must be followed.
- (c) The duration of the Method 9 observations must be thirty (30) minutes (five 6-minute averages).

Subsequent opacity observations shall be conducted within five (5) years of the previous observation.

(Ref.: 40 CFR 60.675(c)(1) and (3) and (d), Subpart OOO)

5.B.8 For Emission Point AA-007, prior to conducting the initial opacity observation required in Condition 5.B.8, the permittee shall develop a plan for conducting the Method 9 opacity observation in accordance with the applicable requirements of 40 CFR Part 60, Subpart OOO. The plan shall include a diagram showing where opacity observations will be conducted with respect to building openings and the opacity standard to which the results observed at each location will be compared. If more than one opacity standard applies at the same location, the permittee shall compare the results of the observations to the lowest applicable standard, unless the permittee can demonstrate that the equipment can be operated independently resulting in separate opacity observation conducted for distinct equipment venting at the same location.

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

5.B.9 For Emission Points AA-001, AA-002, and AA-003, the permittee shall measure the pressure drop across each DLA and record the value at least once daily. The permittee shall also monitor the DLA limestone feeder rates and the hopper and storage bin levels on a daily basis, and maintain records detailing the limestone grade and source in accordance with the CAM Plan found in Appendix C of the permit.

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

5.B.10 For Emission Points AA-001, AA-002, and AA-003, 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.11 For Emission Points AA-001, AA-002, and AA-003, 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.12 For Emission Points AA-001, AA-002, and AA-003, based on the results of a determination made under Condition 5.B.12, 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.13 For Emission Points AA-001, AA-002, and AA-003, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.13 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)

5.B.14 For Emission Points AA-001, AA-002, and AA-003, the permittee must keep a record of the applicability determination with regards to 40 CFR Part 63, Subpart JJJJJ on site at the source for a period of five (5) years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow MDEQ to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

(Ref.: 40 CFR 63.1(b)(3) and 63.10(b)(3), Subpart A)

C. Specific Reporting Requirements

| Emission Point(s)          | Applicable Requirement   | Condition Number | Pollutant/Parameter Monitored | Reporting Requirement   |
|----------------------------|--|------------------|-------------------------------|---|
| AA-001<br>AA-002<br>AA-003 | Permit to Construct issued December 26, 2019                                     | 5.C.1            | HCl, HF                       | Submit test protocol 30 days prior and notify DEQ of test 10 days prior to conducting a performance test                        |
|                            |  | 5.C.2            | Control Device Operation      | Reporting DLA shutdowns and time kiln(s) operated while DLA is offline  |
|                            |  | 5.C.3            | Test Report                   | Submit test report within 60 days of completing test  |
|                            |  | 5.C.4            | Startup/Shutdown Deviations   | Summarize deviations from startup/shutdown requirements   |
|                            |  | 5.C.5            | HCl, HF                       | Semiannual report summarizing emissions   |
| AA-007                     | 40 CFR 60.676(f), Subpart OOO and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1). | 觀湖寮淨鹵鈔           | Opacity                       | Semiannual reporting of any visual observations   |
| AA-001<br>AA-002<br>AA-003 | 40 CFR 64.9(a), CAM  | 5.C.7            | CAM Reporting                 | Semiannual reporting requirements   |
|                            | 40 CFR 64.7(e), CAM  | 5.C.8            | CAM Modification              | Promptly notify DEQ of failure to achieve limit/standard though no excursion or exceedance was indicated by approved monitoring |

5.C.1 For Emission Points AA-001, AA-002, and AA-003, with regards to performance testing required by Condition 5.B.3, the permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to DEQ. The protocol shall also address monitoring of the control device and production data as required to establish the minimum pressure drop and limestone feed rate for determining adequate control of emissions. Also, the permittee shall notify the DEQ in writing at least ten (10) days prior to the intended test date(s) so that an observer may be afforded the opportunity to witness the test.

(Ref.: Permit to Construct issued December 26, 2019)

5.C.2 For Emission Points AA-001, AA-002, and AA-003, in accordance with Condition 5.A.4, the permittee shall submit a report with the date, time, and reason the DLA was shut down and restarted and shall identify the kiln that was operating and number of hours the kiln operated while the DLA was offline.

(Ref.: Permit to Construct issued December 26, 2019)

5.C.3 For Emission Points AA-001, AA-002, and AA-003, the permittee shall report the results of the performance test(s) required by Condition 5.B.3 to the DEQ within sixty (60) days following the completion of the performance test(s). This report shall also contain the minimum pressure drop and limestone feed rate established for each DLA.

(Ref.: Permit to Construct issued December 26, 2019)

5.C.4 For Emission Points AA-001, AA-002, and AA-003, the permittee shall summarize any time a kiln startup or shutdown does not comply with the requirements of Conditions 3.D.1 and 3.D.2 and submit the summary in accordance with Condition 5.A.4.

(Ref.: Permit to Construct issued December 26, 2019)

5.C.5 For Emission Points AA-001, AA-002, and AA-003, in accordance with Condition 5.A.4, the permittee shall submit a summary of the monthly HF and HCl emissions, in tons. Additional information shall include the emission factors used, the monthly tons of brick fired, and hours any kiln operated without the respective DLA in operation. The permittee shall also submit the 12-month rolling total emissions for each month, as determined in accordance with Condition 5.B.7

(Ref.: Permit to Construct issued December 26, 2019)

5.C.6 For Emission Point AA-007 the permittee shall submit in each semiannual report required by Condition 5.A.4, the results of any opacity observations that are completed during the reporting period. The results shall also include the corresponding diagram developed in Condition 5.B.9, noting the location of the observations and applicable opacity standard.

(Ref.: 40 CFR 60.676(f), Subpart OOO and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.7 For Emission Points AA-001, AA-002, and AA-003, the permittee shall submit 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.13. 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.8 For Emission Points AA-001, AA-002, and AA-003, 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)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 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;
  - (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

|                                    |   |
|------------------------------------|---|
| 11 Miss. Admin. Code Pt. 2, Ch. 1. | Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants   |
| 11 Miss. Admin. Code Pt. 2, Ch. 2. | Permit Regulations for the Construction and/or Operation of Air Emissions Equipment   |
| 11 Miss. Admin. Code Pt. 2, Ch. 3. | Regulations for the Prevention of Air Pollution Emergency Episodes  |
| 11 Miss. Admin. Code Pt. 2, Ch. 4. | Ambient Air Quality Standards   |
| 11 Miss. Admin. Code Pt. 2, Ch. 5. | Regulations for the Prevention of Significant Deterioration of Air Quality  |
| 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   |
| 11 Miss. Admin. Code Pt. 2, Ch. 7. | Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act  |
| 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                                | Mississippi Department of Environmental Quality   |
| EPA                                | United States Environmental Protection Agency   |
| gr/dscf                            | Grains Per Dry Standard Cubic Foot  |
| HP                                 | Horsepower  |
| HAP                                | Hazardous Air Pollutant   |
| lbs/hr                             | Pounds per Hour   |
| M or K                             | Thousand  |
| MACT                               | Maximum Achievable Control Technology   |
| MM                                 | Million   |
| MMBTUH                             | 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 61 or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63 |
| NM VOC                             | Non-Methane Volatile Organic Compounds  |
| NO <sub>x</sub>                    | Nitrogen Oxides   |
| NSPS                               | New Source Performance Standards, 40 CFR 60   |
| O&M                                | Operation and Maintenance   |
| PM                                 | Particulate Matter  |
| PM <sub>10</sub>                   | Particulate Matter less than 10 µm in diameter  |
| ppm                                | Parts per Million   |
| PSD                                | Prevention of Significant Deterioration, 40 CFR 52  |
| SIP                                | State Implementation Plan   |
| SO <sub>2</sub>                    | Sulfur Dioxide  |
| TPY                                | Tons per Year   |
| TRS                                | Total Reduced Sulfur  |
| VEE                                | Visible Emissions Evaluation  |
| VHAP                               | Volatile 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 November 10, 2016)

11 Miss. Admin. Code, Part 2, Ch. 2. – Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended July 28, 2005)

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 28, 2012)

40 CFR 82, Protection of Stratospheric Ozone

40 CFR 64, Compliance Assurance Monitoring

40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants

## **APPENDIX C**

### **Compliance Assurance Monitoring (CAM) Plan**

## CAM Plan for Dry Limestone Absorber (DLA) #1

### Emission Points AA-001 and AA-002

| Pollutants: HCl/HF  | Indicator No. 1   | Indicator No. 2   |
|---|---|---|
| <b>Indicator</b>  | Pressure drop across DLA  | DLA limestone feed rates  |
| <b>Measurement Approach</b>   | Monitor pressure drop using pressure gauges   | Monitor the feed setting of limestone on a lb per ton of fired brick basis  |
| <b>Monitoring Method and Location</b>   | Pressure gauges installed in accordance with manufacturer's specifications  | Monitor the limestone feeder feed rate setting  |
| <b>Indicator Range (including the corrective action taken for an excursion)</b> | <p>Minimum pressure drop 0.32" water</p> <p>An excursion is defined as a reading of &lt; 0.32" WC, and results in observation of the emission point to determine if corrective measures are required.</p> | <p>Limestone feed rate shall be set at or above 4.15 lb/ton of fired brick and the limestone hopper and storage bin shall be checked daily for adequate amounts of limestone.</p> <p>An excursion is defined as a feed rate below 4.15 lb/ton of fired brick. Corrective actions shall be taken to return the feed rate above this level.</p> |
| <b>Monitoring Frequency</b>   | Continuous  | Daily   |
| <b>Data Collection/ Recordkeeping Procedures</b>                                | Daily reading recorded in logbook (hard copy or electronic).  | Daily reading of feed rate recorded in logbook (hard copy or electronic), including verification of sufficient limestone supply.  |
| <b>Averaging Period</b>   | Instantaneous   | Instantaneous   |
| <b>QA/QC Practices</b>  | Monthly inspection of all pressure sensors and maintenance in accordance with manufacturer's recommendations.   | Keep records to demonstrate limestone being utilized is the same type used during the most recent performance test. Perform maintenance on the limestone feeder per manufacturer's recommendations, or as needed.   |

## CAM Plan for Dry Limestone Absorber (DLA) #2

### Emission Point AA-003

| Pollutants: HCl/HF  | Indicator No. 1  | Indicator No. 2   |
|---|--|---|
| <b>Indicator</b>  | Pressure drop across DLA   | DLA limestone feed rates  |
| <b>Measurement Approach</b>   | Monitor pressure drop using pressure gauges  | Monitor the feed setting of limestone on a lb per ton of fired brick basis  |
| <b>Monitoring Method and Location</b>   | Pressure gauges installed in accordance with manufacturer's specifications   | Monitor the limestone feeder feed rate setting  |
| <b>Indicator Range (including the corrective action taken for an excursion)</b> | <p>Minimum pressure drop 1.3" water</p> <p>An excursion is defined as a reading of &lt; 1.3" WC, and results in observation of the emission point to determine if corrective measures are required</p> | <p>Limestone feed rate shall be set at or above 6.37 lb/ton of fired brick and the limestone hopper and storage bin shall be checked daily for adequate amounts of limestone.</p> <p>An excursion is defined as a feed rate below 6.37 lb/ton of fired brick. Corrective actions shall be taken to return the feed rate above this level.</p> |
| <b>Monitoring Frequency</b>   | Continuous   | Daily   |
| <b>Data Collection/Recordkeeping Procedures</b>                                 | Daily reading recorded in logbook (hard copy or electronic)  | Daily reading of feed rate recorded in logbook (hard copy or electronic), including verification of sufficient limestone supply.  |
| <b>Averaging Period</b>   | Instantaneous  | Instantaneous   |
| <b>QA/QC Practices</b>  | Monthly inspection of all pressure sensors and maintenance in accordance with manufacturer's recommendations.  | Keep records to demonstrate limestone being utilized is the same type used during the most recent performance test. Perform maintenance on the limestone feeder per manufacturer's recommendations, or as needed.   |