

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Express Grain Terminals LLC
2015 West River Road
Greenwood, Mississippi
Leflore County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with 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.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: JUL 05 2017

Permit No.: 1560-00050

SECTION 1

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)
2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)
3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)
4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)
5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)
6. 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 the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)
7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. 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. 2.2.B(15)(b).)
8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)
9. 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 permit or, for information claimed to be confidential, the permittee shall furnish such records to the 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. 2.2.B(15)(d).)

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A.)
11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. (Ref.: Miss. Code Ann. 49-17-29)
12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in 11 Miss. Admin. Code Pt. 2, R. 1.10., "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants." (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)
13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)
14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:
 - a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and
 - b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions. (Ref.: Miss. Code Ann. 49-17-21)
15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:
 - a) Persistent violation of any of the terms or conditions of this permit;

- b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
or
- c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.C.)

16. Public Record and Confidential Information: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control. (Ref.: Miss. Code Ann. 49-17-39)
17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B)
18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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. 2.1.D(7).)
19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1).)
20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)
21. Beginning Operation: Except as prohibited in Section 1, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by 11 Miss. Admin. Code Pt. 2, R. 2.13.G. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)
22. Application for a Permit to Operate: Except as otherwise specified in Section 1, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

23. Operating Under a Permit to Construct: Except as otherwise specified in Section 1, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)
24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to “net” out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7).)
25. General Duty: All air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)
26. Deviation Reporting: 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. 2.2.B(10).)
27. Compliance Testing: Regarding compliance testing:
- a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.
 - b) Compliance testing will be performed at the expense of the permittee.
 - c) Each emission sampling and analysis report shall include but not be limited to the following:
 - (1) detailed description of testing procedures;
 - (2) sample calculation(s);
 - (3) results; and
 - (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.
- (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)
2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)
3. Upon the completion of construction or installation of an approved stationary source or modification, and prior to commencing operation, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).)
4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with “as built” plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an “as built” application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

SECTION 2
EMISSION POINT DESCRIPTION

The permittee is authorized to construct and operate, upon certification of construction, air emissions equipment, as described in the following table.

Emission Point	Description
AA-003	26.78 MMBtu/hr Boiler Natural gas-fired
AP-001	Bean Conditioner Maximum Design Capacity: 75 tons/hr Existing boiler(s) provide indirect steam to the Bean Conditioner which heats the soybeans. The Bean Conditioner will vent to a high efficiency cyclone, and the cyclone will transfer by-product materials into the soybean hull stream. The cyclone is inherent to the process.
AP-002	Fluid Bed OLHA (Soybean Popping Process) The soybeans are treated with hot air to aid in the de-hulling process. The warm air is circulated through two parallel baghouses to aid in product recovery and energy conservation. The baghouses are inherent to the process. Approximately 30% of the filtered, circulating air is vented and replaced with ambient air in order to control the humidity and other properties of the circulating air stream.

SECTION 3 EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
AA-003, AP-001, AP-002	11 Miss. Admin. Code Pt. 2, Ch. 1.3.B.	3.1	Opacity	Opacity \leq 40% except during startup
	11 Miss. Admin. Code Pt. 2, Ch. 1.3.F(1).	3.2	PM (Filterable only)	$E = 4.1p^{0.67}$
AA-003	11 Miss. Admin. Code Pt. 2, R. 1.3. D(1)(b).	3.3	PM (Filterable only)	$E = 0.8808 * T^{-0.01667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4. A(1).	3.4	SO _x	Emissions shall not exceed 4.8 lbs/MMBTU
	40 CFR 60, Subpart Dc (§60.40c(a))	3.5	Fuel Usage Records	General Applicability
	40 CFR 63, Subpart DDDDD (§63.7485, §63.7499(l), §63.7575)	3.6	HAPs	General Applicability
AP-001, AP-002	11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10).	3.7	PM (Filterable only)	Minimize emissions the soybean popping process.

3.1. For Emission Points AA-003, AP-001, and AP-002, 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 Rule 1.3.A.(1) this shall not apply to vision obscuration caused by uncombined water droplets.
(Ref.: 11 Miss. Admin. Code. Pt. 2, Ch. 1. R. 1.3. B.)

3.2. For Emission Point AA-003, AP-001, and AP-002, except as otherwise specified, the permittee shall not cause, permit or allow the emission 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:

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

Where:

E is the emission rate in pounds per hour

p is the process weight input rate in tons per hour

Where *E* is determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.

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

3.3. For Emission Point AA-003, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations equal to or greater than 10 MMBTU/hr 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 MMBTU/hr heat input and *I* is the heat input in MMBTU/hr.

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

3.4. For Emission Point AA-003, the maximum discharge of sulfur oxides from any fuel burning installations 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, Ch. 1.4. A(1).)

- 3.5. For Emission Point AA-003, the permittee is subject to and shall comply with 40 CFR 60.40c, the National Standards of Performance for New Stationary Sources Subpart Dc- Standards of Performance of Small Industrial-Commercial-Industrial Steam Generating Units for which Construction, Reconstruction, or Modification is commenced after June 9, 1989 and has a maximum design heat capacity of 29 megawatts (MW) (100 million BTU per hour (BTU/hr) or less, but greater than or equal to 2.9 MW (10 million BTU). Emission Point AA-003 can only utilize natural gas as fuel and is only subject to the recordkeeping provisions specified in 40 CFR 60.48c(g).
(Ref.: 40 CFR 60, Subpart Dc; §60.40c(a))
- 3.6. The permittee shall comply with all applicable requirements of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters and the applicable General Provisions upon startup. Emission Point AA-003 meets the definition of new unit, greater than 10 MMBTU/hr, designed to burn gas 1 fuels as categorized in §63.7499(l) and defined in §63.7575, respectively.
(Ref.: 40 CFR 63, Subpart DDDDD; §63.7485, §63.7499(l), and §63.7575)
- 3.7. For Emission Points AP-001 and AP-002, the permittee must always operate the cyclone and baghouses which are inherent to the process and shall operate as efficiently as possible to provide the maximum reduction of contaminants.
(Ref.: 11 Miss. Admin. Code. Pt. 2, Ch. 2. R. 2.2. B (10).)

**SECTION 4
WORK PRACTICES**

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Work Practice
AA-003	40 CFR 63, Subpart DDDDD (§63.7500(a)(1), §63.7515(d), §63.7540(10)) Table 3(3) of Subpart DDDDD	4.1	HAPs	The permittee must perform an annual tune-up.

- 4.1. For Emission Point AA-003, the permittee must conduct an annual tune-up of the boiler to demonstrate continuous compliance as specified below. The tune-up must be conducted while burning the fuel type of fuel that provides the heat input to the boiler over the 12 months prior to the tune-up.
- 1) Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown);
 - 2) 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;
 - 3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next schedule unit shutdown);
 - 4) Optimized total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available;
 - 5) Measure the concentrations in the effluent stream of CO in parts per million, 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; and
 - 6) Maintain on-site and submit, if requested by MDEQ, a report containing the information in the following,
 - a) 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 operation load, before and after the tune-up of the boiler or process heater;
 - b) A description of any corrective actions taken as a part of the tune-up; and

- c) The type and amount of fuel used over the 12 months prior to the tune up.
Units sharing a fuel meter may estimate the fuel used by each unit.

The permittee must conduct annual tune ups with each tune-up begin performed no more than 13 months after the previous tune-up.
(Ref.: 40 CFR 63, Subpart DDDDD; §63.7500(a)(1), §63.7515(d), §63.7540(10), and Table 3(3))

SECTION 5
MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Monitoring/Recordkeeping Requirement
AA-003	40 CFR 60, Subpart Dc (§60.48c(g)(2); §60.48c(i))	5.1	Fuel Usage Records	Record and maintain records of natural gas combusted. Maintain records for two years.
	40 CFR 63, Subpart DDDDD (§63.7555, §63.7560)	5.2	HAPs	Monitoring and Recordkeeping Applicability

- 5.1. For Emission Point AA-003, the permittee shall record and maintain records of the amount of natural gas combusted during each calendar month. Combustion records shall be maintained by the permittee for two years after the record date.
(Ref.: 40 CFR 60, Subpart Dc; §60.48c(g)(2), §60.48c(i))
- 5.2. For Emission Point AA-003, the permittee shall comply with all applicable monitoring and recordkeeping requirements of Subpart DDDDD upon startup.
(Ref.: 40 CFR 63, Subpart DDDDD; §63.7555, §63.7560)

SECTION 6
REPORTING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
AA-003	40 CFR 60, Subpart Dc (§60.48c(j))	6.1	Submit reports every six-month period.
	40 CFR 63, Subpart DDDDD (§63.7550(b)(1) - §63.7550(b)(4))	6.2	Submit annual compliance report of tune-up.

- 6.1. For Emission Point AA-003, the reporting period for reports required under Subpart Dc is each six-month period. All reports shall be submitted to the DEQ and shall be postmarked by the 30th day following the end of the reporting period.
(Ref.: 40 CFR 60, Subpart Dc; §60.48c(j))
- 6.2. For Emission Point AA-003, the permittee must submit an annual compliance report of the tune-up performance in accordance with §63.7540(a)(10) as specified in 63.7550(b)(1) through (4).
(Ref.: 40 CFR 63, Subpart DDDDD; §63.7550(b)(1) through §63.7550(b)(4))