

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

**Emerald Transformer Mississippi, LLC
491 Bowling Green Road
Lexington, Mississippi
Holmes 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: _____

Permit No.: 1140-00060

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:
 - i) detailed description of testing procedures;
 - ii) sample calculation(s);
 - iii) results; and

- iv) 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-001	No. 1 Paint Booth (includes a dual cartridge filter attached to the stack for particulate matter control at 98% efficiency)
AA-002	No. 2 Paint Booth (includes a dual cartridge filter attached to the stack for particulate matter control at 98% efficiency)
AA-003	Welding Booth (includes a fabric filter at the stack for particulate matter control)
AA-004	No. 1 Propane-Fired Bake-Out Oven (Rated Heat Input: 1.0 MMBTU/hour)
AA-005	No. 2 Propane-Fired Bake-Out Oven (Rated Heat Input: 1.0 MMBTU/hour)
AA-006	Sawing and Sanding Area (includes individual booths for each transformer-type that do not emit to the atmosphere – exhaust air from the collective booths is emitted inside the building after passing through filter cartridges – only hand sanding will be conducted)
AA-007	Ten (10) Propane-Fired Space Heaters (Rated Heat Input: 0.20 MMBTU/hour each – collective units used solely for heating within the building)
AA-008	Six (6) Above-Ground Mineral Oil Storage Tanks (Tank Capacity: 10,000 Gallons each – located inside the building)

**SECTION 3
EMISSION LIMITATIONS AND STANDARDS**

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant / Parameter	Limitation / Standard
AA-001 AA-002 AA-003 AA-006	11 Miss. Admin. Code, Pt. 2, R. 1.3.B.	3.1	Opacity	≤ 40%
	11 Miss. Admin. Code, Pt. 2, R. 1.3.F(1).	3.2	PM	$E = 4.1p^{0.67}$
	11 Miss. Admin. Code, Pt. 2, R. 2.2.B(10).	3.3		No Bypass of Control Equipment
AA-004 AA-005 AA-007	11 Miss. Admin. Code, Pt. 2, R. 1.3.A.	3.4	PM	≤ 40%
	11 Miss. Admin. Code, Pt. 2, R. 1.3.D(1)(a).	3.5		0.6 pounds per MMBTU heat input
	11 Miss. Admin. Code, Pt. 2, R. 1.4.A(1).	3.6	SO ₂	4.8 pounds per MMBTU heat input

3.1 For Emission Points AA-001, AA-002, AA-003, and AA-006, the permittee shall not discharge into the ambient air from any point source or emissions, any contaminant of such opacity as to obscure an observer’s view to a degree in excess of 40% opacity. 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 Points AA-001, AA-002, AA-003, and AA-006, except as otherwise specified, the permittee shall not cause, permit, or allow the emission of particulate matter (PM) in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, in excess of the amount determined by the following relationship:

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

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

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

3.3 For Emission Points AA-001, AA-002, AA-003, and AA-006, the permittee shall not allow emissions to bypass air pollution control equipment associated with an affected source. During a period when applicable control equipment has failed and/or malfunctioned, the

permittee shall cease operations from the affected source associated to that specific control equipment. (Ref: 11 Miss. Admin Code Pt. 2, R. 2.2B(10).)

- 3.4 For Emission Points AA-004, AA-005, and AA-007, 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 (40) percent opacity subject to the exceptions provided in the following provisions:
- (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 sixty (60) opacity, and provided further that the aggregate duration of such emission during any 24 hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one (1) hour.

(Ref: 11 Miss. Admin Code Pt. 2, R. 1.2.B(10).)

- 3.5 For Emission Points AA-004, AA-005, and AA-007, the permittee shall limit the emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU (MMBTU) per hour heat input to no more than 0.6 pounds per MMBTU per hour heat input. (Ref: 11 Miss. Admin. Code, Pt. 2, R. 1.3.D(1)(a).)
- 3.6 For Emission Points AA-004, AA-005, and AA-007, the permittee shall not allow the 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 in excess of 4.8 pounds [measured as sulfur dioxides (SO₂)] per million BTU (MMBTU) heat input. (Ref: 11 Miss. Admin. Code, Pt. 2, R. 1.4.A(1).)

**SECTION 4
WORK PRACTICES**

THIS SECTION WAS INTENTIONALLY LEFT BLANK SINCE NO WORK PRACTICE
STANDARDS APPLY TO THIS PERMIT ACTION

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**SECTION 5
MONITORING AND RECORDKEEPING REQUIREMENTS**

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant(s) / Parameter(s)	Monitoring / Recordkeeping Requirement
Facility-Wide	11 Miss. Admin. Code, Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain Records for a Minimum of 5 Years
AA-001 through AA-006	11 Miss. Admin. Code, Pt. 2, R. 2.2.B(11).	5.2	Opacity	Conduct Weekly Visible Emissions Observations
AA-001 AA-002 AA-003 AA-006	11 Miss. Admin. Code, Pt. 2, R. 6.3.A(3)(a)(2).	5.3	PM	Conduct Monthly Inspections / Maintenance Actions
AA-001 AA-002		5.4	VOC	Record Monthly Paint / Primer Usage
			HAPs	
AA-004 AA-005 AA-007		5.5	SO ₂	Maintain Fuel Certification(s)
		5.6	PM	Record Monthly Total Fuel Consumption
		SO ₂		

- 5.1 Except as otherwise specified or limited herein, the permittee shall retain all required records, monitoring data, supporting information, and reports 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 or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to the MDEQ as required by Applicable Rules and Regulations or this permit upon request. (Ref: 11 Miss. Admin. Code, Pt. 2, R. 2.9.)
- 5.2 For Emission Points AA-001 through AA-006, the permittee shall assure compliance with the opacity limitations specified in Conditions 3.1 and 3.4 by performing monthly observations of emissions from the exhaust stack of each affected source while in operation. If any visible emissions are detected during an observation period of six (6) consecutive minutes, a visible emission evaluation (VEE) shall be performed using EPA Reference Method 9 (i.e. "Method 9"). If a VEE is performed using Method 9, then the observation period shall consist of a minimum of eighteen (18) consecutive minutes. However, if the visible emissions after a period of 6 minutes are determined to be less than 20% opacity, then the permittee may discontinue performing the VEE.

The permittee shall maintain a log documenting all visual observations, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize emission, and the date / time when visual emission observations / evaluations were conducted.

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

- 5.3 For Emission Points AA-001, AA-002, AA-003, and AA-006, the permittee shall conduct a monthly inspection of air pollution control equipment associated with each affected source to evaluate performance capability. If a problem is noted with any air pollution control equipment, the permittee shall perform the necessary maintenance to ensure operation as originally designed. Additionally, the permittee shall also maintain sufficient equipment on-site as is necessary to repair air pollution control equipment. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)
- 5.4 For Emission Points AA-001 and AA-002, the permittee shall record and maintain the monthly usage (in gallons) of all respective paints and/or primers. Additionally, the permittee shall maintain supporting documentation that illustrates the volatile organic compound (VOC) content and the hazardous air pollutant (HAP) content of any utilized paint and primer. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)
- 5.5 For Emission Points AA-004, AA-005, and AA-007, the permittee shall demonstrate compliance with the sulfur dioxide (SO₂) emission limit referenced in Condition 3.6 by maintaining certification records from any applicable fuel supplier(s) to showcase the sulfur content for any utilized fuel. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)
- 5.6 For Emission Points AA-004, AA-005, and AA-007, the permittee shall record and maintain the total quantity or volume of fuel (i.e. propane gas) combusted by all affected sources on a monthly basis. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)