PERMIT NO. 1794-123-0027-S-01-0
ISSUANCE DATE:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Air Quality Permit

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name: **Chastain Grading Plus, LLC**

Facility Address: **1695 Old Pleasant Valley Road**
Talking Rock, Georgia 30175 Gilmer County

Mailing Address: **1334 Old Pleasant Valley Road**
Talking Rock, Georgia 30175

Facility AIRS Number: **04-13-123-00027**

is issued a Permit for the following:

Construction and operation of an Airburners Firebox S330 air curtain incinerator. This Permit is issued for the purpose of establishing practically enforceable emission limitations such that the facility will not be considered a major source with respect to Title V of the Clean Air Act Amendments of 1990.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 30228 dated July 02, 2026; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **7** pages.

DRAFT

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Jeffrey W. Cown, Director
Environmental Protection Division

1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

2. Allowable Emissions

2.1 The Permittee shall limit the loading and combustion in the air curtain incinerator (Source Code: ACI) to 31,000 tons per year.
[Title V Avoidance and Air Toxics Avoidance]

2.2 The Permittee shall burn clean cellulosic biomass exclusively in the air curtain incinerator to produce biochar. (Source code: ACI):
[40 CFR 60 Subpart CCCC Avoidance]

For the purpose of this permit, clean cellulosic biomass defined in 40 CFR 241.2, as residuals that are akin to traditional cellulosic biomass, including, but not limited to: Agricultural and forest-derived biomass (e.g., green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, tree harvesting residuals from logging and sawmill materials, hogged fuel, wood pellets, untreated wood pallets); urban wood (e.g., tree trimmings, stumps, and related forest-derived biomass from urban settings); corn stover and other biomass crops used specifically for the production of cellulosic biofuels (e.g., energy cane, other fast growing grasses, byproducts of ethanol natural fermentation processes); bagasse and other crop residues (e.g., peanut shells, vines, orchard trees, hulls, seeds, spent grains, cotton byproducts, corn and peanut production residues, rice milling and grain elevator operation residues); wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, clean biomass from land clearing operations, and clean construction and demolition wood. These fuels are not secondary materials or solid wastes unless discarded. Clean biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials.

2.3 The Permittee shall comply with all applicable provisions of 40 CFR 60 New Source Performance Standards (NSPS), Subpart A General Provisions and Subpart IIII Standards for Stationary Compression Ignition Internal Combustion Engines, for the operation of the diesel-fired engine.
[40 CFR 60, Subparts A and Subpart IIII]

2.4 The Permittee shall not discharge or cause the discharge into the atmosphere from the diesel engine emissions of non-methane hydrocarbons and nitrogen oxides (NMHC+NOx), hydrocarbons (HC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM) in an amount exceeding the emissions standards specified in 40 CFR 60.4204(b), as indicated in Table 2.4-1:
[40 CFR 60.4204(b) and 40 CFR 1039.101]

Table 2.4-1: NSPS 40 CFR Part 60, Subpart IIII Tier 4 Emission Standards for Stationary Diesel Engines with a Displacement < 30 Liters Per Cylinder and Maximum Engine Power Between 19 and 56 kW, for 2014 and Later Model Year Engines, with emission limits in terms of g/kW-hr (lb/HP-hr).

Pollutant →	NMHC + NO_x	CO	PM
Emission Limit →	4.7 (0.00772)	5.0(0.00671)	0.03 (6.61X 10^{-5})

2.5 Fuel oil fired in the generator shall be diesel fuel oil. Distillate fuel oil means fuel oil that complies with the specifications for fuel oil number 1 or 2 as defined by the American Society or Testing and Materials (ASTM) standard ASTM D396, “Standard Specifications for Fuel Oils.”
[391-3-1-.03(2)(c)]

2.6 The Permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR 63 Subpart A - "General Provisions" and 40 CFR 63 Subpart ZZZZ - "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines," for the operation of the diesel-fired engine.
[40 CFR 63, Subparts A and ZZZZ]

2.7 The Permittee shall fuel the diesel engine subject to 40 CFR 60 Subpart IIII with distillate fuel oil that has a maximum sulfur content of 15 ppm (0.0015% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
[40 CFR 60.4204(b), 40 CFR 1090.305 and 391-3-1-.02(2)(g)(2) (subsumed)]

2.8 The Permittee shall not discharge or cause the discharge into the atmosphere any emissions from the air curtain incinerator (Source Code: ACI) which:

a. Contain fly ash and/or other particulate matter in amounts equal to or exceeding the following:

i. Units with charging rates in excess of 500 pounds per hour of combustible waste, including water, shall not emit fly ash and/or particulate matter in excess of 0.20 pounds per 100 pounds of charge
[391-3-1-.02(2)(c)(1.)(ii)]

b. Exhibit visible emissions, the opacity of which is equal to or greater than 20 percent opacity (6-minute average), except for one six-minute average period per hour of not more than 27 percent opacity.
[391-3-1-.02(2)(c)2.]

c. Contain particles that are individually large enough to be visible to the unaided eye.
[391-3-1-.02(2)(c)3.]

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

3.2 The Permittee shall not cause, let, permit, suffer or allow visible emissions from any fugitive source to equal or exceed 20% opacity.
[391-3-1-.02(2)(n)2]

4. Process & Control Equipment

4.1 The diesel engine shall be operated and maintained according to the manufacturers written specifications/instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the Permittee shall only change those emission-related settings that are permitted by the manufacturer.
[40 CFR 60.4206 and 40 CFR 60.4211(a)]

5. Monitoring

5.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 The Permittee shall maintain a daily record of clean cellulosic biomass as defined in Permit Condition 2.2 loaded into the air curtain incinerator (Source Code: ACI). The log shall include the date, time and weight of the load in tons. The Permittee shall calculate and document the total tonnage loaded into the air curtain incinerator each day.
[391-3-1-.02(6)(b)1]

5.3 The Permittee shall inspect each shipment of materials to be burned in the air curtain incinerator (Source Code: ACI) to ensure that the materials meet the requirements of Condition 2.2. If any materials that do not meet the requirements of Condition 2.2 are in the shipment, the Permittee shall reject the shipment. The materials that do not meet the requirements of Condition 2.2 include, but are not limited to, construction, renovation, or demolition wastes, treated wood, treated wood products, wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).
[391-3-1-.02(6)(b)1]

5.4 The Permittee shall verify that each shipment of diesel fuel oil received for combustion in the diesel engine is distillate oil, No. 2 fuel oil, No. 2 diesel fuel oil or very low sulfur diesel fuel oil and that the oil complies with the requirements of Condition 2.5. Verification shall consist of either of the following:

a. Fuel oil receipts obtained from the fuel supplier certifying that the oil is distillate oil, No. 2 fuel oil, No. 2 diesel fuel oil, or very low sulfur diesel fuel oil. Fuel supplier certification shall include the following information: (1) the name of the oil supplier and (2) a statement from the oil supplier that the oil complies with the specifications under the definition of distillate fuel oil; or

b. Analysis of the fuel oil conducted by methods sampling and analysis, which have been specified or approved by the Division.

6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

6.2 Within 180 days of issuance of this permit, the Permittee shall conduct a performance test on the air curtain incinerator for particulate emissions as specified below:
[391-3-1-.02(2)(c) and Procedures for Testing and Monitoring Section 2.2]

a. The Permittee shall determine compliance with the particulate matter standard as follows:

i. For sources subject to mass rate performance standards and/or based on charging rates, use the following formulae:

A. To convert to the specific units of lbs. particulate/100 lbs. charge, then use the following equation:

$$E_c = \frac{cQ}{R}(100)$$

Where:

E_c = the particulate matter emissions expressed as lbs. particulate/100 lbs charge
c = the concentration of particulate matter, lb./dscf; and
Q = the gas flow rate corrected to standard conditions, dscf/hr.
R = the charging rate, lbs. charge/hr.

b. Method 5 shall be used to determine the particulate matter concentration (c_s) or (c). The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

7. Notification, Reporting and Record Keeping Requirements

7.1 The Permittee shall submit written notification of startup of the air curtain incinerator to the Division within 15 days after such date. The notification shall be submitted to:
Mr. Sean Taylor
Stationary Source Compliance Program
4244 International Parkway, Suite 120
Atlanta GA 30354

7.2 The Permittee shall keep the following records in a permanent form suitable for inspection and submission to the Division. Either paper copy or electronic formats are acceptable. The records shall be retained for at least five (5) years following the date of entry.
[NSPS Subpart CCCC Avoidance and 391-3-1-.02(6)(b)1]

a. Annual registration with the Georgia Department of Agriculture as a soil amendment.

7.3 The Permittee shall use the log of the daily load required by Permit Condition 5.2 to calculate the sum of the monthly loading and combustion in the air curtain incinerator (Source Code: ACI). The Permittee shall notify the Division in writing within 15 days if the monthly loading and combustion total in the air curtain incinerator equal or exceed 2583.33 tons.
[Title V Avoidance, Air Toxics Avoidance, and 391-3-1-.02(6)(b)1]

7.4 The Permittee shall use the monthly records required by Permit Condition 7.3 to calculate the 12-month rolling total of clean cellulose biomass burned in the air curtain incinerator (Source Code: ACI). A twelve-month rolling total is defined as the sum of the current month's total plus the totals for the previous eleven consecutive months. The Permittee shall notify the Division in writing within 15 days if the twelve-month rolling total materials burned in the air curtain incinerator equals or exceeds 31,000 tons per year. This notification shall include an explanation of how the Permittee intends to attain future compliance with Condition 2.1. These records shall be retained for at least five (5) years and made available to the Division upon request
[Title V Avoidance, Air Toxics Avoidance, and 391-3-1-.02(6)(b)1]

Commented [SA1]: We don't have them calculate the rolling total anywhere. Maybe a Condition 7.6 to calculate that and attached this to it.

7.5 The Permittee shall keep records verifying that each shipment of diesel fuel received for firing in the diesel engine complies with the applicable requirements in Condition 2.5. Verification shall consist of either the fuel oil receipts and/or fuel supplier certifications or results of analyses of the fuel oils conducted by method of sampling and analysis which have been approved by the EPA or the Division.
[391-3-1-.02(6)(b)1]

8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Application & Annual Permit Fees."